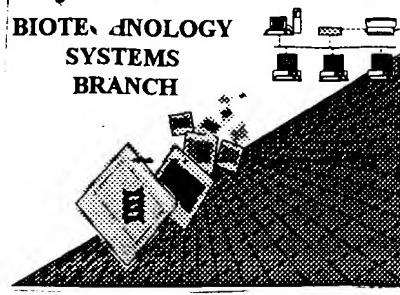


## RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



#3

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DEC 27 2000

TECH CENTER 1600/2000  
RECEIVED

DEC 28 2000

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/646,569

Source: 1645

Date Processed by STIC: 12/14/2000

TECH CENTER

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin30help@uspto.gov](mailto:patin30help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### **Checker Version 3.0**

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).

Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

**Checker Version 3.0 can be down loaded from the USPTO website at the following address:**

<http://www.uspto.gov/web/offices/pac/checker>

# Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>09/646,569</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input type="checkbox"/> Wrapped Nucleics	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".	<b>RECEIVED</b>
2 <input type="checkbox"/> Wrapped Aminos	The amino acid number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".	<b>DEC 27 2000</b>
3 <input type="checkbox"/> Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.	<b>TECH CENTER 1506/2900</b>
4 <input type="checkbox"/> Misaligned Amino Acid Numbering	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.	<b>RECEIVED</b>
5 <input type="checkbox"/> Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text so that it can be processed.	<b>DEC 28 2000</b>
6 <input type="checkbox"/> Variable Length	Sequence(s) <input type="checkbox"/> contain n's or Xaa's which represented more than one residue. As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.	<b>TECH CENTER</b>
7 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) <input type="checkbox"/> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
8 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence. <b>(2) INFORMATION FOR SEQ ID NO:X:</b> (i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS") (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: This sequence is intentionally skipped  Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).	
9 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence. <210> sequence id number <400> sequence id number 000	
10 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing Use of <220> to <223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents	
11 <input type="checkbox"/> Use of <213>Organism (NEW RULES)	Sequence(s) <input type="checkbox"/> are missing this mandatory field or its response.	
12 <input type="checkbox"/> Use of <220>Feature (NEW RULES)	Sequence(s) <input type="checkbox"/> are missing the <220>Feature and associated headings. Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)	
13 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.	

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1645

DEC 28 2000

PAGE: 1

RAW SEQUENCE LISTING

PATENT APPLICATION US/09/646,569

DATE: 12/14/2000

TIME: 00:02:00

Input Set: I646569.RAW

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

ALL PAGES RECEIVED  
DEC 27 2000

1 <110> metaGen Gesellschaft fr Genomforschung mbH  
2 <120> Menschliche Nukleinsuresequenzen aus Brustgewebe  
3 <130> 51572AWOM1XX24-P  
4 <140> US/09/646,569  
5 <141> 2000-09-20  
6 <160> 209

ERRORED SEQUENCES FOLLOW

7 <210> 77  
8 <211> 366  
9 <212> PRT  
10 <213> homo sapiens  
11 <400> 77

Only one space between amino acids. Per 1.823  
of Sequence rules "... each line should contain  
no more than 72 characters." global error

All text should be visible on page.

E-EK  
12 Ile Ala Ser Ala Arg Leu Glu Glu Val Thr Gly Lys Leu Gln Val Al?  
13 1 Arg Asn Leu Ile Met Arg Gly Thr Glu Met Cys Pro Lys Ser Glu As?  
14 20 Val Trp Leu Glu Ala Ala Arg Leu Gln Pro Gly Asp Thr Ala Lys Al?  
15 35 Val Val Ala Gln Ala Val Arg His Leu Pro Gln Ser Val Arg Ile Ty?  
16 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220

E-OK

Per 1.822(d)(2), "... a space provided between each  
amino acid"

PAGE: 2

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

DATE: 12/14/2000  
TIME: 09:51:07

Input Set: I646569.RAW

*Name*

40	Glu	Asp	Arg	Lys	His	Thr	Trp	Met	Glu	Asp	Ala	Asp	Ser	Cys	Val	Al
41	225					230					235					24
42	His	Asn	Ala	Leu	Glu	Cys	Ala	Arg	Ala	Ile	Tyr	Ala	Tyr	Ala	Leu	Gl
E--> 43					245					250					255	
44	Val	Phe	Pro	Ser	Lys	Lys	Ser	Val	Trp	Leu	Arg	Ala	Ala	Tyr	Phe	Gl
45					260				265					270		
46	Lys	Asn	His	Gly	Thr	Arg	Glu	Ser	Leu	Glu	Ala	Leu	Leu	Gln	Arg	Al
47					275				280				285			
48	Val	Ala	His	Cys	Pro	Lys	Ala	Glu	Val	Leu	Trp	Leu	Met	Gly	Ala	Ly
49					290				295				300			
50	Ser	Lys	Trp	Leu	Ala	Gly	Asp	Val	Pro	Ala	Ala	Arg	Ser	Ile	Leu	Al
51					305				310				315			32
E--> 52	Leu	Ala	Phe	Gln	Ala	Asn	Pro	Asn	Ser	Glu	Glu	Ile	Trp	Leu	Ala	Al
53					325					330					335	
54	Val	Lys	Leu	Glu	Ser	Glu	Asn	Asp	Glu	Tyr	Glu	Arg	Ala	Arg	Arg	Le
55					340					345					350	
56	Leu	Ala	Lys	Ala	Arg	Thr	Val	Pro	Pro	Pro	Gly	Cys	Ser			
57					355				360						365	

58 <210> 85  
59 <211> 116  
60 <212> PRT  
61 <213> homo sapiens  
62 <400> 85  
*Name*

63	Gly	Thr	Arg	His	Pro	Leu	Ser	Leu	Ser	His	Lys	Pro	Ala	Lys	Lys	Il
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65	Asp	Val	Ala	Arg	Val	Thr	Phe	Asp	Leu	Tyr	Lys	Leu	Asn	Pro	Gln	As
66					20					25				30		
67	Phe	Ile	Gly	Cys	Leu	Asn	Val	Lys	Ala	Thr	Phe	Tyr	Asp	Thr	Tyr	Se
68					35					40			45			
69	Leu	Ser	Tyr	Asp	Leu	His	Cys	Cys	Gly	Ala	Lys	Arg	Ile	Met	Lys	Gl
70					50					55			60			
71	Ala	Phe	Arg	Trp	Ala	Leu	Phe	Ser	Met	Gln	Ala	Thr	Gly	His	Val	Le
72					65					70			75			8
E--> 73	Leu	Gly	Thr	Ser	Cys	Tyr	Leu	Gln	Gln	Leu	Leu	Asp	Ala	Thr	Glu	Gl
74					85					90					95	
75	Gly	Gln	Pro	Pro	Lys	Gly	Lys	Ala	Ser	Ser	Leu	Ile	Pro	Thr	Cys	Le
76					100					105				110		
77	Lys	Ile	Leu	Gln												
78					115											

79 <210> 89  
80 <211> 411  
81 <212> PRT  
82 <213> homo sapiens  
83 <400> 89  
*Name*

84	Leu	Ala	Thr	His	Ser	Pro	Gln	Lys	Ser	His	Gln	Cys	Ala	His	Cys	Gl
85	1				5					10				15		
86	Lys	Thr	Phe	Asn	Arg	Lys	Asp	His	Leu	Lys	Asn	His	Leu	Gln	Thr	Hi
87					20					25				30		

PAGE: 3

*Patent*  
**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
 TIME: 09:51:07

Input Set: I646569.RAW

88	Asp	Pro	Asn	Lys	Met	Ala	Phe	Gly	Cys	Glu	Glu	Cys	Gly	Lys	Lys	Ty
89			35					40					45			
90	Asn	Thr	Met	Leu	Gly	Tyr	Lys	Arg	His	Leu	Ala	Leu	His	Ala	Ala	Se
91		50					55				60					
92	Ser	Gly	Asp	Leu	Thr	Cys	Gly	Val	Cys	Ala	Leu	Glu	Leu	Gly	Ser	Th
93		65				70				75				8		
94	Glu	Val	Leu	Leu	Asp	His	Leu	Lys	Ala	His	Ala	Glu	Glu	Lys	Pro	Pr
E--> 95					85					90				95		
96	Ser	Gly	Thr	Lys	Glu	Lys	Lys	His	Gln	Cys	Asp	His	Cys	Glu	Arg	Cy
97				100					105				110			
98	Phe	Tyr	Thr	Arg	Lys	Asp	Val	Arg	Arg	His	Leu	Val	Val	His	Thr	Gl
99				115				120				125				
100	Cys	Lys	Asp	Phe	Leu	Cys	Gln	Phe	Cys	Ala	Gln	Arg	Phe	Gly	Arg	Ly
101				130				135				140				
102	Asp	His	Leu	Thr	Arg	His	Thr	Lys	Lys	Thr	His	Ser	Gln	Glu	Leu	Me
103		145				150					155				16	
E--> 104	Lys	Glu	Ser	Leu	Gln	Thr	Gly	Asp	Leu	Leu	Ser	Thr	Phe	His	Thr	Il
105					165					170				175		
106	Ser	Pro	Ser	Phe	Gln	Leu	Lys	Ala	Ala	Ala	Leu	Pro	Pro	Phe	Pro	Le
107					180					185				190		
108	Gly	Ala	Ser	Ala	Gln	Asn	Gly	Leu	Ala	Ser	Ser	Leu	Pro	Ala	Glu	Va
109					195				200				205			
110	His	Ser	Leu	Thr	Leu	Ser	Pro	Pro	Glu	Gln	Ala	Ala	Gln	Pro	Met	Gl
111					210				215				220			
112	Pro	Leu	Pro	Glu	Ser	Leu	Ala	Ser	Leu	His	Pro	Ser	Val	Ser	Pro	Gl
113		225				230					235				24	
E--> 114	Ser	Pro	Pro	Pro	Pro	Leu	Pro	Asn	His	Lys	Tyr	Asn	Thr	Thr	Ser	Th
115						245				250				255		
116	Ser	Tyr	Ser	Pro	Leu	Ala	Ser	Leu	Pro	Leu	Lys	Ala	Asp	Thr	Lys	Gl
117					260				265				270			
118	Phe	Cys	Asn	Ile	Ser	Leu	Phe	Glu	Asp	Leu	Pro	Leu	Gln	Glu	Pro	Gl
119				275				280					285			
120	Ser	Pro	Gln	Lys	Leu	Asn	Pro	Gly	Phe	Asp	Leu	Ala	Lys	Gly	Asn	Al
121					290				295				300			
122	Gly	Lys	Val	Asn	Leu	Pro	Lys	Glu	Leu	Pro	Ala	Asp	Ala	Val	Asn	Le
123					305			310				315				32
124	Thr	Ile	Pro	Ala	Ser	Leu	Asp	Leu	Ser	Pro	Leu	Leu	Gly	Phe	Trp	Gl
E--> 125						325				330				335		
126	Leu	Pro	Pro	Pro	Ala	Thr	Gln	Asn	Thr	Phe	Gly	Asn	Ser	Thr	Leu	Al
127					340				345				350			
128	Leu	Gly	Pro	Gly	Glu	Ser	Leu	Pro	His	Arg	Leu	Ser	Cys	Leu	Gly	Gl
129					355				360				365			
130	Gln	Gln	Gln	Glu	Pro	Pro	Leu	Ala	Met	Gly	Thr	Val	Ser	Leu	Gly	Gl
131					370				375				380			
132	Leu	Pro	Leu	Pro	Pro	Ile	Pro	His	Val	Phe	Ser	Ala	Gly	Thr	Gly	Se
133					385			390				395				40
E--> 134	Ala	Ile	Leu	Pro	His	Phe	His	His	Ala	Phe	Arg					
135						405					410					

PAGE: 4

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
 TIME: 09:51:07

Input Set: I646569.RAW

137 <211> 314  
 138 <212> PRT  
 139 <213> homo sapiens *Name*

141	Lys	Arg	Cys	Gln	Arg	Lys	Gln	Pro	Leu	Arg	Gly	Ile	Gly	Ile	Leu	Ly
142	1				5					10					15	
143	Gln	Ala	Ile	Asp	Lys	Met	Gln	Met	Asn	Thr	Asn	Gln	Leu	Thr	Ser	Il
144				20					25					30		
145	His	Ala	Asp	Leu	Cys	Gln	Leu	Cys	Leu	Leu	Ala	Lys	Cys	Phe	Lys	Pr
146				35					40				45			
147	Ala	Leu	Pro	Tyr	Leu	Asp	Val	Asp	Met	Met	Asp	Ile	Cys	Lys	Glu	As
148				50					55				60			
149	Gly	Ala	Tyr	Asp	Ala	Lys	His	Phe	Leu	Cys	Tyr	Tyr	Tyr	Gly	Gl	
150						70					75					8
151	Met	Ile	Tyr	Thr	Gly	Leu	Lys	Asn	Phe	Glu	Arg	Ala	Leu	Tyr	Phe	Ty
E--> 152					85					90				95		
153	Glu	Gln	Ala	Ile	Thr	Thr	Pro	Ala	Met	Ala	Val	Ser	His	Ile	Met	Le
154				100					105					110		
155	Glu	Ser	Tyr	Lys	Lys	Tyr	Ile	Leu	Val	Ser	Leu	Ile	Leu	Leu	Gly	Ly
156				115					120				125			
157	Val	Gln	Gln	Leu	Pro	Lys	Tyr	Thr	Ser	Gln	Ile	Val	Gly	Arg	Phe	Il
158				130					135				140			
159	Lys	Pro	Leu	Ser	Asn	Ala	Tyr	His	Glu	Leu	Ala	Gln	Val	Tyr	Ser	Th
160						150					155					16
E--> 161	Asn	Asn	Pro	Ser	Glu	Leu	Arg	Asn	Leu	Val	Asn	Lys	His	Ser	Glu	Th
162					165					170				175		
163	Phe	Thr	Arg	Asp	Asn	Asn	Met	Gly	Leu	Val	Lys	Gln	Cys	Leu	Ser	Se
164				180					185					190		
165	Leu	Tyr	Lys	Lys	Asn	Ile	Gln	Arg	Leu	Thr	Lys	Thr	Phe	Leu	Thr	Le
166				195					200				205			
167	Ser	Leu	Gln	Asp	Met	Ala	Ser	Arg	Val	Gln	Leu	Ser	Gly	Pro	Gln	Gl
168				210					215				220			
169	Ala	Glu	Lys	Tyr	Val	Leu	His	Met	Ile	Glu	Asp	Gly	Glu	Ile	Phe	Al
170				225					230				235			24
E--> 171	Ser	Ile	Asn	Gln	Lys	Asp	Gly	Met	Val	Ser	Phe	His	Asp	Asn	Pro	Gl
172					245					250				255		
173	Lys	Tyr	Asn	Asn	Pro	Ala	Met	Leu	His	Asn	Ile	Asp	Gln	Glu	Met	Le
174						260				265				270		
175	Lys	Cys	Ile	Glu	Leu	Asp	Glu	Arg	Leu	Lys	Ala	Met	Asp	Gln	Glu	Il
176				275					280				285			
177	Thr	Val	Asn	Pro	Gln	Phe	Val	Gln	Lys	Ser	Met	Gly	Ser	Gln	Glu	As
178				290					295				300			
179	Asp	Ser	Gly	Asn	Lys	Pro	Ser	Ser	Tyr	Ser						
180				305				310								

181 <210> 92  
 182 <211> 201  
 183 <212> PRT  
 184 <213> homo sapiens  
 185 <400> 92

PAGE: 5

*Mane*  
**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
 TIME: 09:51:07

Input Set: I646569.RAW

186	Met	Asp	Leu	Ser	Leu	Leu	Trp	Val	Leu	Leu	Pro	Leu	Val	Thr	Met	Al
187	1				5				10						15	
188	Trp	Gly	Gln	Tyr	Gly	Asp	Tyr	Gly	Tyr	Pro	Tyr	Gln	Gln	Tyr	His	As
189				20					25						30	
190	Tyr	Ser	Asp	Asp	Gly	Trp	Val	Asn	Leu	Asn	Arg	Gln	Gly	Phe	Ser	Ty
191				35				40					45			
192	Gln	Cys	Pro	Gln	Gly	Gln	Val	Ile	Val	Ala	Val	Arg	Ser	Ile	Phe	Se
193				50			55					60				
194	Lys	Lys	Glu	Gly	Ser	Asp	Arg	Gln	Trp	Asn	Tyr	Ala	Cys	Met	Pro	Th
195					70					75					8	
196	Pro	Gln	Ser	Leu	Gly	Glu	Pro	Thr	Glu	Cys	Trp	Trp	Glu	Glu	Ile	As
E--> 197					85					90					95	
198	Arg	Ala	Gly	Met	Glu	Trp	Tyr	Gln	Thr	Cys	Ser	Asn	Asn	Gly	Leu	Va
199				100					105					110		
200	Ala	Gly	Phe	Gln	Ser	Arg	Tyr	Phe	Glu	Ser	Val	Leu	Asp	Arg	Glu	Tr
201				115				120					125			
202	Gln	Phe	Tyr	Cys	Cys	Arg	Tyr	Ser	Lys	Arg	Cys	Pro	Tyr	Ser	Cys	Tr
203				130			135					140				
204	Leu	Thr	Thr	Glu	Tyr	Pro	Gly	His	Tyr	Gly	Glu	Glu	Met	Asp	Met	Il
205					150					155					16	
206	Ser	Tyr	Asn	Tyr	Asp	Tyr	Tyr	Ile	Arg	Gly	Ala	Thr	Thr	Thr	Phe	Se
E--> 207					165					170					175	
208	Ala	Val	Glu	Arg	Asp	Arg	Gln	Trp	Lys	Phe	Ile	Met	Cys	Arg	Met	Th
209				180					185					190		
210	Glu	Tyr	Asp	Cys	Glu	Phe	Ala	Asn	Val							
211				195					200							

212	<210>	93	<i>Mane</i>													
213	<211>	247														
214	<212>	PRT														
215	<213>	homo sapiens														
216	<400>	93														
217	Met	Gly	Asn	Gly	Leu	Ser	Glu	Glu	Arg	Gly	Asn	Asn	Phe	Asn	His	Il
218	1				5					10					15	
219	Ser	Pro	Ile	Pro	Pro	Val	Pro	His	Pro	Arg	Ser	Val	Ile	Gln	Gln	Al
220				20					25					30		
221	Glu	Glu	Lys	Leu	His	Thr	Pro	Gln	Lys	Arg	Leu	Met	Thr	Pro	Trp	Gl
222				35				40					45			
223	Glu	Ser	Asn	Val	Met	Gln	Asp	Lys	Asp	Ala	Pro	Ser	Pro	Lys	Pro	Ar
224				50			55					60				
225	Leu	Ser	Pro	Arg	Glu	Thr	Ile	Phe	Gly	Lys	Ser	Glu	His	Gln	Asn	Se
226	65				70					75					8	
227	Ser	Pro	Thr	Cys	Gln	Glu	Asp	Glu	Glu	Asp	Val	Arg	Tyr	Asn	Ile	Va
E--> 228					85					90					95	
229	His	Ser	Leu	Pro	Pro	Asp	Ile	Asn	Asp	Thr	Glu	Pro	Val	Thr	Met	Il
230				100					105					110		
231	Phe	Met	Gly	Tyr	Gln	Gln	Ala	Glu	Asp	Ser	Glu	Glu	Asp	Lys	Lys	Ph
232				115				120					125			
233	Leu	Thr	Gly	Tyr	Asp	Gly	Ile	Ile	His	Ala	Glu	Ile	Val	Val	Ile	Ac
234				130				135					140			

PAGE: 6

*Murphy*  
**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
 TIME: 09:51:07

Input Set: I646569.RAW

235	Asp	Glu	Glu	Glu	Glu	Asp	Glu	Gly	Glu	Ala	Glu	Lys	Pro	Ser	Tyr	Hi
236	145					150					155					16
237	Pro	Ile	Ala	Pro	His	Ser	Gln	Val	Tyr	Gln	Pro	Ala	Lys	Pro	Thr	Pr
E--> 238					165					170					175	
239	Leu	Pro	Arg	Lys	Arg	Ser	Glu	Ala	Ser	Pro	His	Glu	Asn	Thr	Asn	Hi
240				180					185					190		
241	Lys	Ser	Pro	His	Lys	Asn	Ser	Ile	Ser	Leu	Lys	Glu	Gln	Glu	Glu	Se
242				195					200				205			
243	Leu	Gly	Ser	Pro	Val	His	His	Ser	Pro	Phe	Asp	Ala	Gln	Thr	Thr	Gl
244		210					215					220				
245	Asp	Gly	Thr	Glu	Asp	Pro	Ser	Leu	Thr	Ala	Leu	Arg	Met	Arg	Met	Al
246		225				230					235					24
E--> 247	Lys	Leu	Gly	Lys	Lys	Val	Ile									
248					245											

249	<210>	95	<i>Murphy</i>														
250	<211>	188															
251	<212>	PRT															
252	<213>	homo sapiens															
253	<400>	95															
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255	1				5					10					15		
256	Ser	Arg	Asp	Thr	Ile	Asp	Tyr	Leu	Leu	Ser	Lys	Asn	Gly	Ser	Gly	As	
257				20					25					30			
258	Ala	Ile	Ile	Ile	Val	Val	Gly	Gly	Ala	Ala	Glu	Ser	Leu	Ser	Ser	Me	
259				35					40				45				
260	Pro	Gly	Lys	Asn	Ala	Val	Thr	Leu	Arg	Asn	Arg	Lys	Gly	Phe	Val	Ly	
261		50					55					60					
262	Leu	Ala	Leu	Arg	His	Gly	Ala	Asp	Leu	Val	Pro	Ile	Tyr	Ser	Phe	Gl	
263		65				70					75					8	
264	Glu	Asn	Glu	Val	Tyr	Lys	Gln	Val	Ile	Phe	Glu	Gly	Ser	Trp	Gl		
E--> 265				85						90				95			
266	Arg	Trp	Val	Gln	Lys	Lys	Phe	Gln	Lys	Tyr	Ile	Gly	Phe	Ala	Pro	Cy	
267				100					105					110			
268	Ile	Phe	His	Gly	Arg	Gly	Leu	Phe	Ser	Ser	Asp	Thr	Trp	Gly	Leu	Va	
269				115					120				125				
270	Pro	Tyr	Ser	Lys	Pro	Ile	Thr	Thr	Val	Val	Gly	Glu	Pro	Ile	Thr	Il	
271		130					135					140					
272	Pro	Lys	Leu	Glu	His	Pro	Thr	Gln	Gln	Asp	Ile	Asp	Leu	Tyr	His	Th	
273		145				150					155					16	
E--> 274	Met	Tyr	Met	Glu	Ala	Leu	Val	Lys	Leu	Phe	Asp	Lys	His	Lys	Thr	Ly	
275					165					170					175		
276	Phe	Gly	Leu	Pro	Glu	Thr	Glu	Val	Leu	Glu	Val	Asn					
277					180					185							

278	<210>	96	<i>Murphy</i>														
279	<211>	290															
280	<212>	PRT															
281	<213>	homo sapiens															
282	<400>	96															

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**RAW SEQUENCE LISTING**  
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285	Pro	Arg	Ile	Lys	Ile	20	Ser	Lys	Thr	Ser	Val	Asp	Gly	Asp	Pro	His	Ph	
286											25					30		
287	Val	Val	Asp	Phe	Pro	35	Leu	Ser	Arg	Leu	Thr	Val	Cys	Phe	Asn	Ile	As	
288									40					45				
289	Gly	Gln	Pro	Gly	Asp	Ile	Leu	Arg	Leu	Val	Ser	Asp	His	Arg	Asp	Se		
290		50						55				60						
291	Gly	Val	Thr	Val	Asn	Gly	Glu	Leu	Ile	Gly	Ala	Pro	Ala	Pro	Pro	AS		
292		65				70					75					8		
293	Gly	His	Lys	Lys	Gln	Arg	Thr	Tyr	Leu	Arg	Thr	Ile	Thr	Ile	Leu	Il		
E-->	294				85					90					95			
295	Asn	Lys	Pro	Glu	Arg	Ser	Tyr	Leu	Glu	Ile	Thr	Pro	Ser	Arg	Val	Il		
296				100					105					110				
297	Leu	Asp	Gly	Gly	Asp	Arg	Leu	Val	Leu	Pro	Cys	Asn	Gln	Ser	Val	Va		
298			115					120				125						
299	Val	Gly	Ser	Trp	Gly	Leu	Glu	Val	Ser	Val	Ser	Ala	Asn	Ala	Asn	Va		
300		130					135					140						
301	Thr	Val	Thr	Ile	Gln	Gly	Ser	Ile	Ala	Phe	Val	Ile	Leu	Ile	His	Le		
302		145				150					155					16		
E-->	303	Tyr	Lys	Lys	Pro	Ala	Pro	Phe	Gln	Arg	His	His	Leu	Gly	Phe	Tyr	Il	
304				165					170			170			175			
305	Ala	Asn	Ser	Glu	Gly	Leu	Ser	Ser	Asn	Cys	His	Gly	Leu	Leu	Gly	Gl		
306				180					185					190				
307	Phe	Leu	Asn	Gln	Asp	Ala	Arg	Leu	Thr	Glu	Asp	Pro	Ala	Gly	Pro	Se		
308			195					200				205						
309	Gln	Asn	Leu	Thr	His	Pro	Leu	Leu	Leu	Gln	Val	Gly	Glu	Gly	Pro	Gl		
310		210					215				220							
311	Ala	Val	Leu	Thr	Val	Lys	Gly	His	Gln	Val	Pro	Val	Val	Trp	Lys	Gl		
312		225				230				235						24		
E-->	313	Arg	Lys	Ile	Tyr	Asn	Gly	Glu	Glu	Gln	Ile	Asp	Cys	Trp	Phe	Ala	Ar	
314				245					250			250			255			
315	Asn	Asn	Ala	Ala	Lys	Leu	Ile	Asp	Gly	Glu	Tyr	Lys	Asp	Tyr	Leu	Al		
316				260					265					270				
317	Ser	His	Pro	Phe	Asp	Thr	Gly	Met	Thr	Leu	Gly	Gln	Gly	Met	Ser	Ar		
318			275					280				285						
319	Glu	Leu																
320		290																

321 <210> 100  
 322 <211> 98  
 323 <212> PRT  
 324 <213> homo sapiens  
 325 <400> 100

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328	Pro	Ser	Arg	Phe	Ser	20	Pro	Val	Leu	Pro	Pro	Ala	Val	Gln	Leu	Gly	V
329										25				30			
330	Trp	Arg	Glu	Glu	Gly	Arg	Gly	Gly	Gly	Ser	Cys	Pro	Phe	Ser	Trp	Gly	Ar
331				35					40					45			

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335		65					70					75				8
E--> 336	Glu	Glu	Val	Ser	Gly	Leu	Ile	Ser	Leu	Leu	Ser	Arg	Cys	Ser	Gly	Se
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338	Leu	Ile														

339	<210> 101															<i>Mus</i>		
340	<211> 117																	
341	<212> PRT																	
342	<213> homo sapiens																	
343	<400> 101																	
344	Met	Gly	Lys	Gly	Leu	Gly	Glu	Asp	Gly	Gln	Gln	Arg	Ala	Arg	Glu	Se		
345	1				5					10					15			
346	Trp	Thr	Ser	Gln	Arg	Arg	Arg	Pro	Gln	Gln	Val	Gln	Ser	Arg	Ala	Al		
347				20					25					30				
348	Thr	Ser	Cys	Pro	Ala	Gly	Cys	Leu	Glu	Gly	Arg	Gly	Gln	Arg	Arg	Va		
349				35					40					45				
350	Met	Ser	Leu	Gln	Leu	Gly	Glu	Gly	Pro	Ser	Glu	Leu	His	Val	Ala	Ph		
351				50					55					60				
352	Ser	Gln	Arg	Glu	Gln	Glu	Gly	Arg	Ile	Gly	Arg	Glu	Asn	Asn	Gly	Gl		
353		65				70					75					8		
E--> 354	Gly	Thr	Cys	Glu	Gly	Lys	Gln	Gly	Gly	Ser	Glu	Arg	Phe	Asp	Gln	Pr		
355				85						90					95			
356	Ala	Ile	Thr	Val	Phe	Trp	Leu	Ser	Tyr	Leu	Ala	Arg	Arg	Leu	Arg	As		
357				100					105					110				
358	Arg	Tyr	Ile	Thr	Ser													
359				115														

360	<210> 102															<i>Mus</i>		
361	<211> 145																	
362	<212> PRT																	
363	<213> homo sapiens																	
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366	1				5					10					15			
367	Lys	Arg	Asp	Arg	Ser	Ala	Arg	Gly	Pro	His	Pro	Ala	Pro	Leu	Gly	Gl		
368				20					25					30				
369	Pro	Leu	Leu	Thr	Trp	Val	Ser	Leu	Arg	Leu	His	Gln	Leu	Val	Gly	Le		
370				35					40					45				
371	Gln	Ala	Ser	Pro	Pro	Asp	Ser	Pro	His	Cys	Trp	Ala	Thr	Leu	Asn	Le		
372		50				55						60						
373	Lys	Phe	His	Cys	Pro	Ala	Pro	Pro	Thr	Pro	Thr	Pro	Lys	Phe	Pro	Ly		
374		65				70					75					8		
E--> 375	Glu	Met	Ser	Lys	Thr	His	Ala	His	Thr	Tyr	Ile	His	Thr	Cys	Thr	CY		
376				85						90					95			
377	Ala	His	Thr	Ser	Cys	Val	Thr	Thr	Gly	Gln	Gly	Asn	Ala	Ser	Leu	Ar		
378				100						105					110			
379	Ile	Pro	Gly	Pro	Gly	Pro	Gly	Val	Lys	Gly	Cys	Ser	Gly	Thr	Leu	Pr		

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380				115						120					125		
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383	Pro																
384		145															

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 386 <211> 197  
 387 <212> PRT  
*Name*  
 388 <213> homo sapiens  
 389 <400> 103  
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 391 1 5 10 15  
 392 Gln Asp Ser Arg Ala Trp Thr Trp Gly Lys Gly Leu Leu Trp Asp Se  
 393 20 25 30  
 394 Ala Pro Gln Pro Leu Gly Gly Pro Arg Val Trp Gly Gln Asp Trp Va  
 395 35 40 45  
 396 Ser Ala Leu Thr His Arg Ile Ser Pro Gly Pro Lys Ala Glu Lys Ly  
 397 50 55 60  
 398 Ser Gly Arg Arg Ser Arg Arg Gln Gly Trp Trp Thr Lys Val Gly Va  
 399 65 70 75 80  
 400 Arg Leu Lys Ser Gly Ser Glu Thr Arg Phe Asp His Thr His His Pr  
**E--> 401** 85 90 95  
 402 Ser Val Pro Pro Gly Gln His Ala Pro Leu Glu Pro Leu His Arg Le  
 403 100 105 110  
 404 Ile Arg Thr Arg Gln Asn Leu Leu Leu Thr Asn Leu Leu Arg Ala Va  
 405 115 120 125  
 406 Tyr Arg Gly Ile Thr Leu Val Gln Glu Gly Cys Pro Ser Cys Phe Hi  
 407 130 135 140  
 408 Thr Thr Thr Gly Pro Thr Ile Pro Leu Leu Ala Ser Leu Arg Arg Pr  
 409 145 150 155 160  
 410 Arg Asp Pro Gln Lys Pro Gly Glu Lys Glu Ser Trp Pro Leu Val Se  
**E--> 411** 165 170 175  
 412 Thr Ala Phe Arg Ala Thr Gly Gly Asp Ala Gln Met Thr Trp Val Ly  
 413 180 185 190  
 414 Gly Leu Ser Gln Thr  
 415 195

416 <210> 104  
 417 <211> 152  
 418 <212> PRT  
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 419 <213> homo sapiens  
 420 <400> 104  
 421 Ser Glu Ala Arg Asn Ala Pro Ser Gly Thr Ala Gln Thr Phe Ala Me  
 422 1 5 10 15  
 423 Gly Phe Met Thr Gly Thr Ile Ser Ser Met Tyr Gln Thr Lys Ala Va  
 424 20 25 30  
 425 Ile Ile Ala Met Ile Ile Thr Ala Val Val Ser Ile Ser Val Thr Il  
 426 35 40 45  
 427 Phe Cys Phe Gln Thr Lys Val Asp Phe Thr Ser Cys Thr Gly Leu Ph

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**RAW SEQUENCE LISTING**  
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Input Set: I646569.RAW

*Mwne*

428	50																
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430	65					70					75					8	
E--> 431	Val	Leu	Tyr	Phe	Gln	Tyr	Val	Tyr	Trp	Leu	His	Met	Leu	Tyr	Ala	Al	
432					85					90					95		
433	Leu	Gly	Ala	Ile	Cys	Phe	Thr	Leu	Phe	Leu	Ala	Tyr	Asp	Thr	Gln	Le	
434					100					105					110		
435	Val	Leu	Gly	Asn	Arg	Lys	His	Thr	Ile	Ser	Pro	Glu	Asp	Tyr	Ile	Th	
436					115					120					125		
437	Gly	Ala	Leu	Gln	Ile	Tyr	Thr	Asp	Ile	Ile	Tyr	Ile	Phe	Thr	Phe	Va	
438					130					135					140		
439	Leu	Gln	Leu	Met	Gly	Asp	Arg	Asn									
440					145					150							

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 442 <211> 91  
 443 <212> PRT  
 444 <213> homo sapiens  
 445 <400> 106  
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 447 1 5 10 15  
 448 Leu Phe Lys Ser Ile Leu Asn Trp Leu Pro Ser Phe Lys Leu Asn Gl  
 449 20 25 30  
 450 Thr Leu Lys Ala Trp Ser Ser His Thr Gly Pro Thr Phe Pro His Gl  
 451 35 40 45  
 452 Asn Tyr Glu Arg Ala Pro Ala Gln Gln Gly Leu Ser Arg Ser Leu Pr  
 453 50 55 60  
 454 Pro Pro Leu Pro Val Pro Gln Ile Trp Pro Leu Leu Arg Lys Ile Ar  
 455 65 70 75 80  
 E--> 456 Thr Ala Thr Gly Pro Ser Glu Pro Lys Pro Thr  
 457 85 90

458 <210> 108  
 459 <211> 471  
 460 <212> PRT  
 461 <213> homo sapiens  
 462 <400> 108  
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 464 1 5 10 15  
 465 Gln Lys Glu Asn Val Pro Pro Gly Pro Glu Val Cys Ile Thr His Gl  
 466 20 25 30  
 467 Glu Gly Glu Lys Ile Ser Ala Asn Glu Asn Ser Leu Ala Val Arg Se  
 468 35 40 45  
 469 Thr Pro Ala Glu Asp Asp Ser Arg Asp Ser Gln Val Lys Ser Glu Va  
 470 50 55 60  
 471 Gln Gln Pro Val His Pro Lys Pro Leu Ser Pro Asp Ser Arg Ala Se  
 472 65 70 75 80  
 473 Ser Leu Ser Glu Ser Ser Pro Pro Lys Ala Met Lys Phe Gln Al  
 474 85 90 95  
 475 Pro Ala Arg Glu Thr Cys Val Glu Cys Gln Lys Thr Val Tyr Pro Me

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Input Set: I646569.RAW

476	100												105				110			
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478				115				120					125							
479	Cys	Ser	Tyr	Cys	Asn	Asn	Lys	Leu	Ser	Leu	Gly	Thr	Tyr	Ala	Ser	Le				
480			130				135					140								
481	His	Gly	Arg	Ile	Tyr	Cys	Lys	Pro	His	Phe	Asn	Gln	Leu	Phe	Lys	Se				
482			145				150				155					16				
483	Lys	Gly	Asn	Tyr	Asp	Glu	Gly	Phe	Gly	His	Arg	Pro	His	Lys	Asp	Le				
E-->	<b>484</b>				<b>165</b>					<b>170</b>					<b>175</b>					
485	Trp	Ala	Ser	Lys	Asn	Glu	Asn	Glu	Glu	Ile	Leu	Glu	Arg	Pro	Ala	Gl				
486				180					185					190						
487	Leu	Ala	Asn	Ala	Arg	Glu	Thr	Pro	His	Ser	Pro	Gly	Val	Glu	Asp	Al				
488			195					200					205							
489	Pro	Ile	Ala	Lys	Gly	Gly	Val	Leu	Ala	Ala	Ser	Met	Glu	Ala	Lys	Al				
490			210				215				220									
491	Ser	Ser	Gln	Gln	Glu	Lys	Glu	Asp	Lys	Pro	Ala	Glu	Thr	Lys	Lys	Le				
492			225			230				235					24					
E-->	<b>493</b>	Arg	Ile	Ala	Trp	Pro	Pro	Pro	Thr	Glu	Leu	Gly	Ser	Ser	Gly	Ser	Al			
494					<b>245</b>					<b>250</b>					<b>255</b>					
495	Leu	Glu	Glu	Gly	Ile	Lys	Met	Ser	Lys	Pro	Lys	Trp	Pro	Pro	Glu	As				
496				260					265					270						
497	Glu	Ile	Ser	Lys	Pro	Glu	Val	Pro	Glu	Asp	Val	Asp	Leu	Asp	Leu	Ly				
498			275				280				285									
499	Lys	Leu	Arg	Arg	Ser	Ser	Ser	Leu	Lys	Glu	Arg	Ser	Arg	Pro	Phe	Th				
500			290				295				300									
501	Val	Ala	Ala	Ser	Phe	Gln	Ser	Thr	Ser	Val	Lys	Ser	Pro	Lys	Thr	Va				
502			305			310				315					32					
E-->	<b>503</b>	Ser	Pro	Pro	Ile	Arg	Lys	Gly	Trp	Ser	Met	Ser	Glu	Gln	Ser	Glu	Gl			
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505	Ser	Val	Gly	Gly	Arg	Val	Ala	Glu	Arg	Lys	Gln	Val	Glu	Asn	Ala	Ly				
506				340					345					350						
507	Ala	Ser	Lys	Lys	Asn	Gly	Asn	Val	Gly	Lys	Thr	Thr	Trp	Gln	Asn	Ly				
508			355					360				365								
509	Glu	Ser	Lys	Gly	Glu	Thr	Gly	Lys	Arg	Ser	Lys	Glu	Gly	His	Ser	Le				
510			370				375				380									
511	Glu	Met	Glu	Asn	Glu	Asn	Leu	Val	Glu	Asn	Gly	Ala	Asp	Ser	Asp	Gl				
512			385			390				395					40					
E-->	<b>513</b>	Asp	Asp	Asn	Ser	Phe	Leu	Lys	Gln	Gln	Ser	Pro	Gln	Glu	Pro	Lys	Se			
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515	Leu	Asn	Trp	Ser	Ser	Phe	Val	Asp	Asn	Thr	Phe	Ala	Glu	Glu	Phe	Th				
516				420					425					430						
517	Thr	Gln	Asn	Gln	Lys	Ser	Gln	Asp	Val	Glu	Leu	Trp	Glu	Gly	Glu	Va				
518				435				440				445								
519	Val	Lys	Glu	Leu	Ser	Val	Glu	Glu	Gln	Ile	Lys	Arg	Asn	Arg	Tyr	Ty				
520			450				455				460									
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523	<210> 112																			
524	<211> 94																			

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Input Set: I646569.RAW

525 <212> PRT  
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 527 <400> 112  
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 529 1 5 10 15  
 530 Lys Tyr Thr Leu Phe Leu Ile Ala His Met Gly Pro Pro Tyr Leu Le  
 531 20 25 30  
 532 Ala Leu Val Leu Met Leu Lys Ser Trp Pro Trp Glu Arg Cys Leu Pr  
 533 35 40 45  
 534 Gly Arg His Ser Cys Leu Val Gln Ala Lys Pro Leu Cys Asn Ala Se  
 535 50 55 60  
 536 Pro Phe Trp Cys Tyr Glu Val Pro Leu Cys Arg Arg Phe His Gln Gl  
 537 65 70 75 80  
 538 Leu Val Thr Val Pro Ser Thr Arg Thr Cys Phe Glu Ile Ser  
**E--> 539** 85 90

540 <210> 113  
 541 <211> 324  
 542 <212> PRT  
 543 <213> homo sapiens *Mam*  
 544 <400> 113  
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 546 1 5 10 15  
 547 Trp Gly Gly Leu Thr Ser Ser Arg Thr Thr Asp Asn Gly Gly Glu Gl  
 548 20 25 30  
 549 Thr Ala Leu Ser Pro Gln Glu Ala Pro Phe Ser Gly Ile Ser Thr Pr  
 550 35 40 45  
 551 Pro Asp Val Leu Ser Val Gly Pro Glu Pro Ala Trp Glu Ala Ala Al  
 552 50 55 60  
 553 Thr Thr Lys Gly Leu Ala Thr Asp Val Ala Thr Phe Thr Gln Gly Al  
 554 65 70 75 80  
 555 Ala Pro Gly Arg Glu Asp Thr Gly Leu Leu Thr Thr His Gly Pr  
**E--> 556** 85 90 95  
 557 Glu Glu Ala Pro Arg Leu Ala Met Leu Gln Asn Glu Leu Glu Gly Le  
 558 100 105 110  
 559 Gly Asp Ile Phe His Pro Met Asn Ala Glu Glu Gln Ala Gln Leu Al  
 560 115 120 125  
 561 Ala Ser Gln Pro Gly Pro Lys Val Leu Ser Ala Glu Gln Gly Ser Ty  
 562 130 135 140  
 563 Phe Val Arg Leu Gly Asp Leu Gly Pro Ser Phe Arg Gln Arg Ala Ph  
 564 145 150 155 160  
 565 Glu His Ala Val Ser His Leu Gln His Gly Gln Phe Gln Ala Arg As  
**E--> 566** 165 170 175  
 567 Thr Leu Ala Gln Leu Gln Asp Cys Phe Arg Leu Ile Glu Lys Ala Gl  
 568 180 185 190  
 569 Gln Ala Pro Glu Gly Gln Pro Arg Leu Asp Gln Gly Ser Gly Ala Se  
 570 195 200 205  
 571 Ala Glu Asp Ala Ala Val Gln Glu Glu Arg Asp Ala Gly Val Leu Se  
 572 210 215 220  
 573 Arg Val Cys Gly Leu Leu Arg Gln Leu His Thr Ala Tyr Ser Gly Le

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*Name*

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E--> 576		Arg	Ala	Arg	His	Ser	Leu	Cys	Glu	Leu	Tyr	Gly	Ile	Val	Ala	Ser	Al
577					260					265						270	
578																	
579		Gly	Ser	Val	Glu	Glu	Leu	Pro	Ala	Glu	Arg	Leu	Val	Gln	Ser	Arg	Gl
580					275					280						285	
581		Gly	Val	His	Gln	Ala	Trp	Gln	Gly	Leu	Glu	Gln	Leu	Leu	Glu	Gly	Le
582					290					295						300	
583		Gln	His	Asn	Pro	Pro	Leu	Ser	Trp	Leu	Val	Gly	Pro	Phe	Ala	Leu	Pr
584					305					310							32
585		Ala	Gly	Gly	Gln												

*Name*

586	<210>	114															
587	<211>	148															
588	<212>	PRT															
589	<213>	homo sapiens															
590	<400>	114															
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592	1				5					10						15	
593	Thr	Thr	Val	Cys	Pro	Pro	Cys	Asp	Asn	Glu	Leu	Lys	Ser	Glu	Ala	Il	
594				20					25							30	
595	Ile	Glu	His	Leu	Cys	Ala	Ser	Glu	Phe	Ala	Leu	Arg	Met	Lys	Ile	Ly	
596				35					40							45	
597	Glu	Val	Lys	Lys	Glu	Asn	Gly	Asp	Lys	Lys	Ile	Val	Pro	Lys	Lys	Ly	
598				50					55								
599	Lys	Pro	Leu	Lys	Leu	Gly	Pro	Ile	Lys	Lys	Lys	Asp	Leu	Lys	Lys	Le	
600			65			70						75					8
601	Val	Leu	Tyr	Leu	Lys	Asn	Gly	Ala	Asp	Cys	Pro	Cys	His	Gln	Leu	As	
E--> 602					85					90						95	
603	Asn	Leu	Ser	His	His	Phe	Leu	Ile	Met	Gly	Arg	Lys	Val	Lys	Ser	Gl	
604					100					105						110	
605	Tyr	Leu	Leu	Thr	Ala	Ile	His	Lys	Trp	Asp	Lys	Lys	Asn	Lys	Glu	Ph	
606				115					120							125	
607	Lys	Asn	Phe	Met	Lys	Lys	Met	Lys	Asn	His	Glu	Cys	Pro	Thr	Phe	Gl	
608			130				135					140					
609	Ser	Val	Phe	Lys													
610			145														

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611	<210>	119															
612	<211>	135															
613	<212>	PRT															
614	<213>	homo sapiens															
615	<400>	119															
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617	1				5					10						15	
618	Leu	Ser	Leu	Leu	Tyr	Pro	Lys	Ser	Ile	Ser	Arg	His	Val	Ser	Val	A	
619				20						25						30	
620	Thr	Ser	Val	Val	Thr	Gln	Gln	Leu	Leu	Ser	Glu	Pro	Ser	Pro	Lys	A	
621				35					40								

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**RAW SEQUENCE LISTING**  
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Input Set: I646569.RAW

622	Pro	Arg	Ala	Arg	Pro	Cys	Arg	Val	Ser	Thr	Ala	Asp	Arg	Ser	Val	Ar
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624	Lys	Gly	Ile	Met	Ala	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Leu	Lys	Val	Ar
625		65					70					75				8
E--> 626	Asp	Thr	Leu	Met	Leu	Ala	Asp	Lys	Pro	Phe	Phe	Leu	Val	Leu	Glu	Gl
627						85				90					95	
628	Asp	Gly	Thr	Thr	Val	Glu	Thr	Glu	Glu	Tyr	Phe	Gln	Ala	Leu	Ala	Gl
629					100				105					110		
630	Asp	Thr	Val	Phe	Met	Val	Leu	Gln	Lys	Gly	Gln	Lys	Trp	Gln	Pro	Pr
631				115				120					125			
632	Ser	Glu	Gln	Gly	Thr	Arg	His									
633				130				135								

634	<210>	122	<i>Mauri</i>														
635	<211>	193															
636	<212>	PRT															
637	<213>	homo sapiens															
638	<400>	122															
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640	1				5					10					15		
641	Arg	Ala	Arg	Arg	Arg	Pro	Trp	Met	Ser	His	Arg	Thr	Ser	Ser	Thr	Ph	
642				20					25					30			
643	Arg	Ala	Glu	Arg	Ser	Phe	His	Ser	Ala	Al							
644			35					40						45			
645	Thr	Ser	Ser	Ser	Ala	Ser	Arg	Ala	Leu	Pro	Ala	Gln	Asp	Pro	Pro	Me	
646				50			55					60					
647	Glu	Lys	Ala	Leu	Ser	Met	Phe	Ser	Asp	Asp	Phe	Gly	Ser	Phe	Met	Ar	
648		65				70					75					8	
E--> 649	Pro	His	Ser	Glu	Pro	Leu	Ala	Phe	Pro	Ala	Arg	Pro	Gly	Gly	Ala	Gl	
650				85					90					95			
651	Asn	Ile	Lys	Thr	Leu	Gly	Asp	Ala	Tyr	Glu	Phe	Ala	Val	Asp	Val	Ar	
652				100					105					110			
653	Asp	Phe	Ser	Pro	Glu	Asp	Ile	Ile	Val	Thr	Thr	Ser	Asn	Asn	His	I1	
654				115				120					125				
E--> 655	Glu	Val	Arg	Ala	Glu	Lys	Leu	Ala	Ala	Asp	Gly	Thr	Val	Met	Asn	Th	
656		130				135						140					
657	Phe	Ala	His	Lys	Cys	Gln	Leu	Pro	Glu	Asp	Val	Asp	Pro	Thr	Ser	Va	
658		145				150					155					16	
E--> 659	Thr	Ser	Ala	Leu	Arg	Glu	Asp	Gly	Ser	Leu	Thr	Ile	Arg	Ala	Arg	Ar	
660					165					170					175		
661	His	Pro	His	Thr	Glu	His	Val	Gln	Gln	Thr	Phe	Arg	Thr	Glu	Ile	Ly	
662					180				185						190		
663	Ile																

664	<210>	126	<i>Mauri</i>														
665	<211>	250															
666	<212>	PRT															
667	<213>	homo sapiens															
668	<400>	126															
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**RAW SEQUENCE LISTING**  
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Input Set: I646569.RAW

670	1					5					10					15			
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672				20					25						30				
673	Asn	Glu	Thr	Ile	Ile	Val	Leu	Pro	Ser	Asn	Val	Ile	Asn	Phe	Ser	Gl			
674			35					40						45					
675	Ala	Glu	Lys	Pro	Glu	Pro	Thr	Asn	Gln	Gly	Gln	Asp	Ser	Leu	Lys	Ly			
676			50				55					60							
677	His	Leu	His	Ala	Glu	Ile	Lys	Val	Ile	Gly	Thr	Ile	Gln	Ile	Leu	Cy	8		
678		65				70				75									
679	Gly	Met	Met	Val	Leu	Ser	Leu	Gly	Ile	Ile	Leu	Ala	Ser	Ala	Ser	Ph			
E-->	680				85					90					95				
681	Ser	Pro	Asn	Phe	Thr	Gln	Val	Thr	Ser	Thr	Leu	Leu	Asn	Ser	Ala	Ty			
682				100					105					110					
683	Pro	Phe	Ile	Gly	Pro	Phe	Phe	Phe	Ile	Ile	Ser	Gly	Ser	Leu	Ser	Il			
684			115				120					125							
685	Ala	Thr	Glu	Lys	Arg	Leu	Thr	Lys	Leu	Leu	Val	His	Ser	Ser	Leu	Va			
686		130				135					140								
687	Gly	Ser	Ile	Leu	Ser	Ala	Leu	Ser	Ala	Leu	Val	Gly	Phe	Ile	Ile	Le	16		
688		145				150					155								
E-->	689	Ser	Val	Lys	Gln	Ala	Thr	Leu	Asn	Pro	Ala	Ser	Leu	Gln	Cys	Glu	Le	175	
690					165					170									
691	Asp	Lys	Asn	Asn	Ile	Pro	Thr	Arg	Ser	Tyr	Val	Ser	Tyr	Phe	Tyr	Hi			
692				180					185					190					
693	Asp	Ser	Leu	Tyr	Thr	Thr	Asp	Cys	Tyr	Thr	Ala	Lys	Ala	Ser	Leu	Al			
694		195					200					205							
695	Gly	Thr	Leu	Ser	Leu	Met	Leu	Ile	Cys	Thr	Leu	Leu	Glu	Phe	Cys	Le			
696		210				215					220								
697	Ala	Val	Leu	Thr	Ala	Val	Leu	Arg	Trp	Lys	Gln	Ala	Tyr	Ser	Asp	Ph	24		
698		225				230					235								
E-->	699	Pro	Gly	Val	Ser	Val	Leu	Ala	Gly	Phe	Thr								
700					245					250									

701 <210> 129  
702 <211> 211  
703 <212> PRT  
704 <213> homo sapiens  
705 <400> 129

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708	Pro	Ala	Arg	Arg	Ser	Ala	Gly	Gly	Ser	Pro	Pro	Pro	Pro	Pro	Trp	Pr		
709				20					25					30				
710	Arg	Val	Pro	Ala	Ala	Ala	Gly	Thr	Glu	Gly	Ala	Ser	Pro	Asp	Le			
711		35					40					45						
712	Ala	Pro	Leu	Arg	Pro	Ala	Ala	Pro	Gly	Gln	Thr	Pro	Leu	Arg	Lys	Gl		
713		50					55					60						
714	Val	Leu	Lys	Ser	Lys	Met	Gly	Lys	Ser	Glu	Lys	Ile	Ala	Leu	Pro	Hi		
715		65				70				75								
E-->	716	Gly	Gln	Leu	Val	His	Gly	Ile	His	Leu	Tyr	Glu	Gln	Pro	Lys	Ile	A5	
717					85					90				95				
718	Arg	Gln	Lys	Ser	Lys	Tyr	Asn	Leu	Pro	Leu	Thr	Lys	Ile	Thr	Ser	An		

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 735 <211> 87  
 736 <212> PRT  
 737 <213> homo sapiens *Same*  
 738 <400> 135  
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 740        1               5                 10  
 741       Leu Pro Met Trp His Pro Leu Pro Arg Lys Lys Pro Gly Met Tyr Ar  
 742               20                 25                 30  
 743       Gly Asn Gly His Gln Asn His Tyr Pro Pro Pro Val Pro Phe Gly Ty  
 744               35                 40                 45  
 745       Pro Asn Gln Gly Arg Lys Asn Lys Pro Tyr Arg Pro Ile Pro Val Th  
 746               50                 55                 60  
 747       Trp Val Pro Pro Gly Met His Cys Asp Arg Asn His Trp Ile As  
 748               65                 70                 75                 8  
 749       Pro His Met Leu Ala Pro His  
 E--> 750               85

751 <210> 138  
 752 <211> 366  
 753 <212> PRT  
 754 <213> homo sapiens *name*  
 755 <400> 138  
 756 Arg Pro Lys Pro Gly His Pro Leu Tyr Ser Lys Tyr Met Arg Gly As  
 757 1 5 10 15  
 758 Val Leu Val Met Leu Lys Gln Thr Glu Asn Asn Tyr Leu Glu Cys Gl  
 759 20 25 30  
 760 Lys Gly Glu Asp Thr Gly Arg Val His Leu Ser Gln Met Lys Ile Il  
 761 35 40 45  
 762 Thr Pro Leu Asp Glu His Leu Arg Ser Arg Pro Asn Asp Pro Ser Hi  
 763 50 55 60  
 764 Ala Gln Lys Pro Val Asp Ser Gly Ala Pro His Ala Val Val Leu Hi  
 765 65 70 75 80  
 766 Asp Phe Pro Ala Glu Gln Val Asp Asp Leu Asn Leu Thr Ser Gly Gl

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Input Set: I646569.RAW

E-->	767	85												90				
	768	Ile	Val	Tyr	Leu	Leu	Glu	Lys	Ile	Asp	Thr	Asp	Trp	Tyr	Arg	Gly	As	
	769				100					105				110				
	770	Cys	Arg	Asn	Gln	Ile	Gly	Ile	Phe	Pro	Ala	Asn	Tyr	Val	Lys	Val	Il	
	771				115				120				125					
	772	Ile	Asp	Ile	Pro	Glu	Gly	Gly	Asn	Gly	Lys	Arg	Glu	Cys	Val	Ser	Se	
	773				130			135				140						
	774	His	Cys	Val	Lys	Gly	Ser	Arg	Cys	Val	Ala	Arg	Phe	Glu	Tyr	Ile	Gl	
	775				145			150				155				16		
	776	Glu	Gln	Lys	Asp	Glu	Leu	Ser	Phe	Ser	Glu	Gly	Glu	Ile	Ile	Ile	Le	
E-->	777					165					170					175		
	778	Lys	Glu	Tyr	Val	Asn	Glu	Glu	Trp	Ala	Arg	Gly	Glu	Val	Arg	Gly	Ar	
	779				180					185				190				
	780	Thr	Gly	Ile	Phe	Pro	Leu	Asn	Phe	Val	Glu	Pro	Val	Glu	Asp	Tyr	Pr	
	781				195				200				205					
	782	Thr	Ser	Gly	Ala	Asn	Val	Leu	Ser	Thr	Lys	Val	Pro	Leu	Lys	Thr	Ly	
	783				210			215				220						
	784	Lys	Glu	Asp	Ser	Gly	Ser	Asn	Ser	Gln	Val	Asn	Ser	Leu	Pro	Ala	Gl	
	785				225			230				235				24		
	786	Trp	Cys	Glu	Ala	Leu	His	Ser	Phe	Thr	Ala	Glu	Thr	Ser	Asp	Asp	Le	
E-->	787					245					250					255		
	788	Ser	Phe	Lys	Arg	Gly	Asp	Arg	Ile	Gln	Ile	Leu	Glu	Arg	Leu	Asp	Se	
	789				260					265				270				
	790	Asp	Trp	Cys	Arg	Gly	Arg	Leu	Gln	Asp	Arg	Glu	Gly	Ile	Phe	Pro	Al	
	791				275				280				285					
	792	Val	Phe	Val	Arg	Pro	Cys	Pro	Ala	Glu	Ala	Lys	Ser	Met	Leu	Ala	Il	
	793				290			295				300						
	794	Val	Pro	Lys	Gly	Arg	Lys	Ala	Lys	Ala	Leu	Tyr	Asp	Phe	Arg	Gly	Gl	
	795				305			310				315				32		
	796	Asn	Glu	Asp	Glu	Leu	Ser	Phe	Lys	Ala	Gly	Asp	Ile	Ile	Thr	Glu	Le	
E-->	797					325					330					335		
	798	Glu	Ser	Val	Asp	Asp	Asp	Trp	Met	Ser	Gly	Glu	Leu	Met	Gly	Lys	Se	
	799				340					345				350				
	800	Gly	Ile	Phe	Pro	Lys	Asn	Tyr	Ile	Gln	Phe	Leu	Gln	Ile	Ser			
	801				355				360					365				

802 &lt;210&gt; 145

803 &lt;211&gt; 109

804 &lt;212&gt; PRT

805 &lt;213&gt; homo sapiens

806 &lt;400&gt; 145

807	Met	Pro	Lys	Gly	Lys	Ala	Phe	Arg	Arg	Thr	Leu	Arg	Ile	Thr	Ser	Le
808		1			5					10				15		
809	Phe	Phe	Ser	Ser	Leu	Leu	Leu	Leu	Gln	Leu	Leu	Phe	Gly	His	His	Le
810					20					25				30		
811	Leu	Val	Leu	Val	Ser	Pro	Gln	Leu	Pro	Gly	Ala	Val	Phe	Glu	Gly	Gl
812					35				40				45			
813	Ala	Phe	Ser	Val	Pro	Pro	Pro	Gln	Ala	Leu	Pro	Met	Met	Ala	Pro	Se
814					50				55				60			
815	His	His	Pro	Ser	Pro	Ala	Pro	Leu	Pro	Ala	Ser	Pro	Pro	Pro	Pro	Al

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816	65																		
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<b>E--&gt; 818</b>						85					90								
819		Pro	Arg	Ser	Arg	Arg	Leu	Pro	Glu	Leu	Pro	Gln	Pro	Arg					
820						100					105								

821	<210> 146																	
822	<211> 247																	
823	<212> PRT																	
824	<213> homo sapiens																	
825	<400> 146																	
826	Arg	Pro	Ala	Pro	Ala	Pro	Arg	Cys	Gln	Leu	Pro	Gln	Arg	Pro	Ala	Gl		
827	1				5					10						15		
828	Ala	Arg	Cys	Met	Leu	Ser	Arg	Cys	Arg	Ser	Arg	Leu	Leu	His	Val	Le		
829				20					25					30				
830	Gly	Leu	Ser	Phe	Leu	Leu	Gln	Thr	Arg	Arg	Pro	Ile	Leu	Leu	Cys	Se		
831				35				40					45					
832	Pro	Arg	Leu	Met	Lys	Pro	Leu	Val	Val	Phe	Val	Leu	Gly	Gly	Pro	Gl		
833				50				55					60					
834	Ala	Gly	Lys	Gly	Thr	Gln	Cys	Ala	Arg	Ile	Val	Glu	Lys	Tyr	Gly	Ty		
835				65			70				75				8			
836	Thr	His	Leu	Ser	Ala	Gly	Glu	Leu	Leu	Arg	Asp	Glu	Arg	Lys	Asn	Pr		
<b>E--&gt; 837</b>				85					90					95				
838	Asp	Ser	Gln	Tyr	Gly	Glu	Leu	Ile	Glu	Lys	Tyr	Ile	Lys	Glu	Gly	Ly		
839				100					105					110				
840	Ile	Val	Pro	Val	Glu	Ile	Thr	Ile	Ser	Leu	Leu	Lys	Arg	Glu	Met	As		
841				115					120					125				
842	Gln	Thr	Met	Ala	Ala	Asn	Ala	Gln	Lys	Asn	Lys	Phe	Leu	Ile	Asp	Gl		
843				130				135					140					
844	Phe	Pro	Arg	Asn	Gln	Asp	Asn	Leu	Gln	Gly	Trp	Asn	Lys	Thr	Met	As		
845				145				150				155				16		
846	Gly	Lys	Ala	Asp	Val	Ser	Phe	Val	Leu	Phe	Phe	Asp	Cys	Asn	Asn	Gl		
<b>E--&gt; 847</b>				165					170				175					
848	Ile	Cys	Ile	Glu	Arg	Cys	Leu	Glu	Arg	Gly	Lys	Ser	Ser	Gly	Arg	Se		
849				180					185					190				
850	Asp	Asp	Asn	Arg	Glu	Ser	Leu	Glu	Lys	Arg	Ile	Gln	Thr	Tyr	Leu	Gl		
851				195					200					205				
852	Ser	Thr	Lys	Pro	Ile	Ile	Asp	Leu	Tyr	Glu	Glu	Met	Gly	Lys	Val	Ly		
853				210				215					220					
854	Lys	Ile	Asp	Ala	Ser	Lys	Ser	Val	Asp	Glu	Val	Phe	Asp	Glu	Val	Va		
855				225				230				235				24		
<b>E--&gt; 856</b>	Gln	Ile	Phe	Asp	Lys	Glu	Gly											
<b>E--&gt; 857</b>				245														

858	<210> 147																	
859	<211> 181																	
860	<212> PRT																	
861	<213> homo sapiens																	
862	<400> 147																	
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864	1				5					10					15		
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866				20					25					30			
867	Leu	Gln	Ala	Ala	Pro	Gly	Ala	Pro	Arg	Pro	Ser	Ser	Ser	Thr	Leu	Va	
868				35					40					45			
869	Asp	Glu	Leu	Glu	Ser	Ser	Phe	Glu	Ala	Cys	Phe	Ala	Ser	Leu	Val	Se	
870		50					55					60					
871	Gln	Asp	Tyr	Val	Asn	Gly	Thr	Asp	Gln	Glu	Glu	Ile	Arg	Thr	Gly	Va	
872		65				70					75					8	
873	Asp	Gln	Cys	Ile	Gln	Lys	Phe	Leu	Asp	Ile	Ala	Arg	Gln	Thr	Glu	Cy	
E-->	<b>874</b>				<b>85</b>					<b>90</b>					<b>95</b>		
875	Phe	Phe	Leu	Gln	Lys	Arg	Leu	Gln	Leu	Ser	Val	Gln	Lys	Pro	Glu	Gl	
876				100					105					110			
877	Val	Ile	Lys	Glu	Asp	Val	Ser	Glu	Leu	Arg	Asn	Glu	Leu	Gln	Arg	Ly	
878			115					120					125				
879	Asp	Ala	Leu	Val	Gln	Lys	His	Leu	Thr	Lys	Leu	Arg	His	Trp	Gln	Gl	
880		130				135						140					
881	Val	Leu	Glu	Asp	Ile	Asn	Val	Gln	His	Lys	Lys	Pro	Ala	Asp	Ile	Pr	
882		145				150						155				16	
E-->	<b>883</b>	Gln	Gly	Ser	Leu	Ala	Tyr	Leu	Glu	Gln	Ala	Ser	Ala	Asn	Ile	Pro	Al
884					<b>165</b>					<b>170</b>						<b>175</b>	
885	Pro	Leu	Lys	Pro	Thr												
886				180													

887	<210> 148	<i>Name</i>															
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889	<212> PRT																
890	<213> homo sapiens																
891	<400> 148																
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893		1			5					10					15		
894	Val	Ser	Val	Thr	Lys	Gln	Leu	Pro	Thr	Ser	Glu	Ala	Val	Val	Ser	Al	
895				20					25					30			
896	Val	Ser	Glu	Ala	Gly	Ala	Ser	Gly	Ile	Thr	Glu	Ala	Gln	Ala	Arg	Al	
897			35					40					45				
898	Ile	Val	Asn	Ser	Ala	Leu	Lys	Leu	Tyr	Ser	Gln	Asp	Lys	Thr	Gly	Me	
899			50				55					60					
900	Val	Asp	Phe	Ala	Leu	Glu	Ser	Gly	Gly	Gly	Ser	Ile	Leu	Ser	Thr	Ar	
901		65				70					75					8	
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903					<b>85</b>					<b>90</b>					<b>95</b>		
904	Ile	Pro	Leu	Trp	Tyr	Phe	Ser	Gln	Ser	Pro	Arg	Val	Val	Ile	Gln	Pr	
905				100					105					110			
906	Asp	Ile	Tyr	Pro	Gly	Asn	Cys	Trp	Ala	Phe	Lys	Gly	Ser	Gln	Gly	Ty	
907			115					120					125				
908	Leu	Val	Val	Arg	Leu	Ser	Met	Met	Ile	His	Pro	Ala	Ala	Phe	Thr	Le	
909			130				135					140					
910	Glu	His	Ile	Pro	Lys	Thr	Leu	Ser	Pro	Thr	Gly	Asn	Ile	Ser	Ser	Al	
911		145				150					155					15	
912	Pro	Lys	Asp	Phe	Ala	Val	Tyr	Gly	Leu	Glu	Asn	Glu	Tyr	Gln	Glu	Gl	

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*Name*

E-->	913																			
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	915				180					185						190				
	916	Gln	Met	Phe	Gln	Ala	Leu	Lys	Arg	Pro	Asp	Asp	Asp	Thr	Ala	Phe	Gln	Il		
	917				195					200						205				
	918	Val	Glu	Leu	Arg	Ile	Phe	Ser	Asn	Trp	Gly	His	Pro	Glu	Tyr	Thr	Cy			
	919				210					215					220					
	920	Leu	Tyr	Arg	Phe	Arg	Val	His	Gly	Glu	Pro	Val	Lys							
	921				225				230				235							

922 <210> 151  
 923 <211> 377  
 924 <212> PRT  
 925 <213> homo sapiens  
 926 <400> 151

*Name*

E-->	927	Leu	Arg	Arg	Phe	Pro	Ala	Gln	Ser	Ser	Pro	Ala	Pro	Arg	Arg	Ala	Pr			
	928	1				5					10					15				
	929	Glu	Gln	Arg	Pro	Pro	Ala	Gly	Pro	Ala	Ser	Ala	Trp	Ser	Ser	Ser	Ty			
	930					20					25					30				
	931	Pro	His	Ala	Pro	Tyr	Leu	Gly	Ser	Ala	Arg	Ser	Leu	Ser	Pro	His	Ly			
	932					35					40				45					
	933	Met	Ala	Asp	Gly	Gly	Ser	Pro	Phe	Leu	Gly	Arg	Arg	Asp	Phe	Val	Ty			
	934					50					55				60					
	935	Pro	Ser	Ser	Thr	Arg	Asp	Pro	Ser	Ala	Ser	Asn	Gly	Gly	Gly	Ser	Pr			
	936					65					70				75			8		
	937	Ala	Arg	Arg	Glu	Glu	Lys	Lys	Arg	Lys	Ala	Ala	Arg	Leu	Lys	Phe	As			
E-->	938					85						90					95			
	939	Phe	Gln	Ala	Gln	Ser	Pro	Lys	Glu	Leu	Thr	Leu	Gln	Lys	Gly	Asp	Il			
	940					100					105					110				
	941	Val	Tyr	Ile	His	Lys	Glu	Val	Asp	Lys	Asn	Trp	Leu	Glu	Gly	Glu	Hi			
	942					115					120					125				
	943	His	Gly	Arg	Leu	Gly	Ile	Phe	Pro	Ala	Asn	Tyr	Val	Glu	Val	Leu	Pr			
	944					130					135					140				
	945	Ala	Asp	Glu	Ile	Pro	Lys	Pro	Ile	Lys	Pro	Pro	Thr	Tyr	Gln	Val	Le			
	946					145					150				155			16		
	947	Glu	Tyr	Gly	Glu	Ala	Val	Ala	Gln	Tyr	Thr	Phe	Lys	Gly	Asp	Leu	Gl			
E-->	948					165						170					175			
	949	Val	Glu	Leu	Ser	Phe	Arg	Lys	Gly	Glu	His	Ile	Cys	Leu	Ile	Arg	Ly			
	950					180					185					190				
	951	Val	Asn	Glu	Asn	Trp	Tyr	Glu	Gly	Arg	Ile	Thr	Gly	Thr	Gly	Arg	Gl			
	952					195					200					205				
	953	Gly	Ile	Phe	Pro	Ala	Ser	Tyr	Val	Gln	Val	Ser	Arg	Glu	Pro	Arg	Le			
	954					210					215					220				
	955	Arg	Leu	Cys	Asp	Asp	Gly	Pro	Gln	Leu	Pro	Thr	Ser	Pro	Arg	Leu	Th			
	956					225					230				235			24		
	957	Ala	Ala	Ala	Arg	Ser	Ala	Arg	Asp	Pro	Ser	Ala	Pro	Ser	Ala	Leu	Ar			
E-->	958					245						250					255			
	959	Ser	Pro	Ala	Asp	Pro	Thr	Asp	Leu	Gly	Gly	Gln	Thr	Ser	Pro	Arg	Ar			
	960					260					265					270				
	961	Thr	Gly	Phe	Ser	Phe	Pro	Thr	Gln	Glu	Pro	Arg	Pro	Gln	Thr	Gln	As			

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
 TIME: 09:51:07

Input Set: I646569.RAW

Myle

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966		305					310				315					32
967	Thr	Pro	Tyr	Arg	Ala	Met	Tyr	Gln	Tyr	Arg	Pro	Gln	Asn	Glu	Asp	Gl
E--> 968					325					330					335	
969	Leu	Glu	Leu	Arg	Glu	Gly	Asp	Arg	Val	Asp	Val	Met	Gln	Gln	Cys	As
970				340					345					350		
971	Asp	Gly	Trp	Phe	Val	Gly	Val	Ser	Arg	Arg	Thr	Gln	Lys	Phe	Gly	Th
972				355					360					365		
973	Phe	Pro	Gly	Asn	Tyr	Val	Ala	Pro	Val							
974				370				375								

Myle

975	<210>	157														
976	<211>	97														
977	<212>	PRT														
978	<213>	homo sapiens														
979	<400>	157														
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982	Pro	Pro	Leu	Glu	Ser	Ala	Glu	Pro	Leu	Gly	Pro	Ala	Ala	Asp	Leu	Tr
983				20					25					30		
984	Ala	Asp	Val	Asp	Leu	Thr	Glu	Phe	Asp	Gln	Tyr	Leu	Asn	Cys	Ser	Ar
985				35				40					45			
986	Thr	Arg	Pro	Asp	Ala	Pro	Gly	Leu	Pro	Tyr	His	Val	Ala	Leu	Ala	Ly
987				50				55				60				
988	Leu	Gly	Pro	Arg	Ala	Met	Ser	Cys	Pro	Glu	Glu	Ser	Ser	Leu	Ile	Se
989						70					75				8	
990	Ala	Leu	Ser	Asp	Ala	Ser	Ser	Ala	Val	Tyr	Tyr	Ser	Ala	Cys	Ile	Se
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992	Gly															

Jane

993	<210>	158														
994	<211>	173														
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996	<213>	homo sapiens														
997	<400>	158														
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1000	Gly	Pro	Gln	Trp	Gln	Arg	Gly	Pro	Gly	Pro	Gly	Ala	Gly	Val	Gly	As
1001					20					25				30		
1002	Pro	Gly	Leu	Ser	Ala	Val	Ala	Phe	Trp	Trp	Gly	Ala	Met	Glu	Thr	Gl
1003					35				40				45			
1004	Asn	Gln	Ala	Val	Gly	Ser	Gln	Arg	Trp	Ser	Leu	Arg	Gly	Glu	Trp	A
1005							55					60				
1006	Ala	Phe	Cys	Phe	Cys	Leu	Val	Pro	Pro	His	Gly	Thr	Tyr	Phe	Pro	6
1007						70					75					6
1008	Glu	Asn	Glu	Arg	Arg	Gly	Glu	Val	Glu	Asn	Arg	Thr	Phe	His	Lys	G
E--> 1009					85					90					95	

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
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Input Set: I646569.RAW

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1012	Phe	Pro	Ala	Asp	Glu	Thr	Ile	Arg	Lys	Gly	Leu	Arg	Leu	Trp	Gln	Va
1013				115				120						125		
1014	Gly	Phe	Gly	Ala	Gly	Ala	Glu	Thr	Phe	Leu	Ser	Met	Arg	Thr	Ser	Ty
1015				130			135						140			
1016	Ser	Ser	Ser	Trp	Gly	Gly	Ala	Ala	Cys	Gly	Met	Ala	Gly	Glu	Asp	Al
1017				145			150				155					16
1018	Leu	Glu	Asn	Arg	Pro	Pro	Ser	Val	Glu	Gly	Pro	Phe	Pro			
E--> 1019					165					170						

1020	<210> 159															
1021	<211> 109															
1022	<212> PRT															
1023	<213> homo sapiens															
1024	<400> 159															
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1027	Ser	Gly	Leu	Trp	Ala	Cys	Arg	Glu	Val	Ala	Val	Arg	Gln	Ser	Ala	Le
1028				20					25					30		
1029	Trp	Pro	Cys	Leu	Cys	Pro	Ala	Arg	Gly	Arg	Gly	Leu	Trp	Thr	Ser	Ar
1030				35				40					45			
1031	Pro	Ser	Gly	Trp	Gly	Ser	Arg	Ser	Val	Gln	Ala	Gly	Ser	Ser	Thr	Cy
1032				50			55					60				
1033	Pro	Pro	Arg	Gln	Pro	Ser	Pro	Ser	Leu	Ser	Ala	Gly	Ala	Ala	Gly	Pr
1034				65			70				75					8
1035	Ala	Gly	Ala	Phe	Pro	Ala	Thr	Leu	Phe	Leu	His	Val	Leu	Pro	Ser	Gl
E--> 1036					85						90				95	
1037	Pro	Arg	Pro	Ser	Thr	Gly	Lys	Thr	Ser	Arg	Leu	Thr	Pro			
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1041	<212> PRT															
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1045	1				5				10					15		
1046	Ala	Ala	Arg	Arg	Gly	Ser	Ala	Pro	Pro	Thr	Thr	Pro	Thr	Ala	Glu	As
1047				20					25					30		
1048	Thr	Glu	Arg	Pro	Gly	Ala	Pro	Ser	Trp	Phe	Pro	Leu	Val	Pro	Asn	Gl
1049				35				40					45			
1050	Thr	Glu	Arg	Leu	Lys	Glu	Leu	Pro	Gly	Met	Val	Thr	Ala	Glu	Lys	Ly
1051				50			55					60				
1052	Ser	Ser	Glu	Trp	Leu	His	Ala	Ala	Ala	Cys	Val	His	Leu	Pro	Se	
1053				65			70			75					8	
1054	Thr	Gln	Asp	Ser	Pro	Arg	Gln	Gln	Leu	Val	Phe	Thr	Cys	Pro	Pro	Pr
E--> 1055					85					90				95		
1056	Arg	Thr	Val	Pro	Gly	Leu	Ala	Pro	Cly	Cys	Arg	Gly	Ser	Ala	Glu	Gl
1057					100					105				110		

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

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Input Set: I646569.RAW

1058	Ala	Ser	Cys	Pro	Ile	Ser	Leu	Ala	Asn	Ser	Leu	Leu	Leu	Gly	Pr	
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1060	His	Lys	Arg	His	Gly	Arg	Met	Phe	Leu	Ile	Arg	Gln	Glu	His	Arg	Th
1061		130					135					140				
1062	Pro	Asn	Pro	Ser	Leu	Cys	Leu	Ala								
1063		145				150										

1064 <210> 179  
 1065 <211> 262  
 1066 <212> PRT  
 1067 <213> homo sapiens  
 1068 <400> 179

*Name*

E--&gt;

1069	Ser	Leu	Cys	Val	Phe	Pro	Ser	Ser	Ala	Ala	Ser	Phe	Leu	Ser	Phe	Le
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1071	Ala	Leu	Val	Val	Ala	Ala	Thr	Met	Asn	Lys	Lys	Lys	Lys	Pro	Phe	Le
1072			20					25						30		
1073	Gly	Met	Pro	Ala	Pro	Leu	Gly	Tyr	Val	Pro	Gly	Leu	Gly	Arg	Gly	Al
1074		35						40					45			
1075	Thr	Gly	Phe	Thr	Thr	Arg	Ser	Asp	Ile	Gly	Pro	Ala	Arg	Asp	Ala	As
1076		50					55					60				
1077	Asp	Pro	Val	Asp	Asp	Arg	His	Ala	Pro	Pro	Gly	Lys	Arg	Thr	Val	Gl
1078	65					70					75					8
1079	Asp	Gln	Met	Lys	Lys	Asn	Gln	Ala	Ala	Asp	Asp	Asp	Asp	Clu	Asp	Le
1080				85						90					95	
1081	Asn	Asp	Thr	Asn	Tyr	Asp	Glu	Phe	Asn	Gly	Tyr	Ala	Gly	Ser	Leu	Ph
1082				100					105					110		
1083	Ser	Ser	Gly	Pro	Tyr	Glu	Lys	Asp	Asp	Glu	Glu	Ala	Asp	Ala	Ile	Ty
1084			115						120					125		
1085	Ala	Ala	Leu	Asp	Lys	Arg	Met	Asp	Glu	Arg	Arg	Lys	Glu	Arg	Arg	Gl
1086		130					135					140				
1087	Gln	Arg	Glu	Lys	Glu	Glu	Ile	Glu	Lys	Tyr	Arg	Met	Glu	Arg	Pro	Ly
1088	145				150					155					16	
1089	Ile	Gln	Gln	Gln	Phe	Ser	Asp	Leu	Lys	Arg	Lys	Leu	Ala	Glu	Val	Th
1090				165						170					175	
1091	Glu	Glu	Glu	Trp	Leu	Ser	Ile	Pro	Glu	Val	Gly	Asp	Ala	Arg	Asn	Ly
1092				180					185					190		
1093	Arg	Gln	Arg	Asn	Pro	Arg	Tyr	Glu	Lys	Leu	Thr	Pro	Val	Pro	Asp	Se
1094		195						200					205			
1095	Phe	Phe	Ala	Lys	His	Leu	Gln	Thr	Gly	Glu	Asn	His	Thr	Ser	Val	As
1096		210					215					220				
1097	Pro	Arg	Gln	Thr	Gln	Phe	Gly	Gly	Leu	Asn	Thr	Pro	Tyr	Pro	Gly	Gl
1098	225					230					235					24
1099	Leu	Asn	Thr	Pro	Tyr	Pro	Gly	Gly	Met	Thr	Pro	Gly	Leu	Met	Thr	Pr
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1101	Gly	Thr	Val	Ser	Trp	Thr										
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1103 <210> 180  
 1104 <211> 467  
 1105 <212> PRT

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
 TIME: 09:51:07

Input Set: I646569.RAW

*Mr. R.*

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1110	Ala	Arg	Thr	Asp	Asp	20	Thr	Trp	His	Ser	Glu	Leu	Asp	Met	Arg	Lys	Il	
1111										25					30			
1112	Gly	Gln	Ala	Arg	Asn	35	Thr	Leu	Met	Asp	Met	Arg	Leu	Ser	Gln	Val	Se	
1113									40					45				
1114	Asp	Ser	Val	Ser	Gly	Gln	Thr	Val	Val	Asp	Pro	Lys	Gly	Tyr	Leu	Th		
1115							55					60						
1116	Asp	Leu	Asn	Ser	Met	Ile	Pro	Thr	His	Gly	Gly	Asp	Ile	Asn	Asp	Il		
1117						70				75					8			
1118	Lys	Lys	Ala	Arg	Leu	Leu	Leu	Lys	Ser	Val	Arg	Glu	Thr	Asn	Pro	Hi		
E-->	<b>1119</b>					85				90					95			
1120	His	Pro	Pro	Ala	Trp	Ile	Ala	Ser	Ala	Arg	Leu	Glu	Glu	Val	Thr	Gl		
1121					100				105					110				
1122	Lys	Leu	Gln	Val	Ala	Arg	Asn	Leu	Ile	Met	Lys	Gly	Thr	Glu	Met	CY		
1123				115				120					125					
1124	Pro	Lys	Ser	Glu	Asp	Val	Trp	Leu	Glu	Ala	Ala	Arg	Leu	Gln	Pro	Gl		
1125				130			135					140						
1126	Asp	Thr	Ala	Lys	Ala	Val	Val	Ala	Gln	Ala	Val	Arg	His	Leu	Pro	Gl		
1127						150				155					16			
E-->	<b>1128</b>	Ser	Val	Arg	Ile	Tyr	Ile	Arg	Ala	Ala	Glu	Leu	Glu	Thr	Asp	Ile	Ar	
1129						165				170					175			
1130	Ala	Lys	Lys	Arg	Val	Leu	Arg	Lys	Ala	Leu	Glu	His	Val	Pro	Asn	Se		
1131				180				185					190					
1132	Val	Arg	Leu	Trp	Lys	Ala	Ala	Val	Glu	Leu	Glu	Glu	Pro	Glu	Asp	Al		
1133				195				200					205					
1134	Arg	Ile	Met	Leu	Ser	Arg	Ala	Val	Glu	Cys	Cys	Pro	Thr	Ser	Val	Gl		
1135				210			215					220						
1136	Leu	Trp	Leu	Ala	Leu	Ala	Arg	Leu	Glu	Thr	Tyr	Glu	Asn	Ala	Arg	Ly		
1137						230				235					24			
E-->	<b>1138</b>	Val	Leu	Asn	Lys	Ala	Arg	Glu	Asn	Ile	Pro	Thr	Asp	Arg	His	Ile	Tr	
1139						245				250					255			
1140	Ile	Thr	Ala	Ala	Lys	Leu	Glu	Glu	Ala	Asn	Gly	Asn	Thr	Gln	Met	Va		
1141					260				265					270				
1142	Glu	Lys	Ile	Ile	Asp	Arg	Ala	Ile	Thr	Ser	Leu	Arg	Ala	Asn	Gly	Va		
1143				275				280					285					
1144	Glu	Ile	Asn	Arg	Glu	Gln	Trp	Ile	Gln	Asp	Ala	Glu	Glu	Cys	Asp	Ar		
1145				290			295					300						
1146	Ala	Gly	Ser	Val	Ala	Thr	Cys	Gln	Ala	Val	Met	Arg	Ala	Val	Ile	Gl		
1147				305			310				315				32			
E-->	<b>1148</b>	Ile	Gly	Ile	Glu	Glu	Glu	Asp	Arg	Lys	His	Thr	Trp	Met	Glu	Asp	Al	
1149						325				330					335			
1150	Asp	Ser	Cys	Val	Ala	His	Asn	Ala	Leu	Glu	Cys	Ala	Arg	Ala	Ile	Ty		
1151					340				345					350				
1152	Ala	Tyr	Ala	Leu	Gln	Val	Phe	Pro	Ser	Lys	Lys	Ser	Val	Trp	Leu	At		
1153					355				360					365				
1154	Ala	Ala	Tyr	Phe	Glu	Lys	Asn	His	Gly	Thr	Arg	Glu	Ser	Leu	Glu	Al		
1155					370				375					380				

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**RAW SEQUENCE LISTING**  
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 1158 Leu Met Gly Ala Lys Ser Lys Trp Leu Ala Gly Asp Val Pro Ala Al  
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 1160 Arg Ser Ile Leu Ala Leu Ala Phe Gln Ala Asn Pro Asn Ser Glu Gl  
 1161 420 425 430  
 1162 Ile Trp Leu Ala Ala Val Lys Leu Glu Ser Glu Asn Asp Glu Tyr Gl  
 1163 435 440 445  
 1164 Arg Ala Arg Arg Leu Leu Ala Lys Ala Arg Thr Val Pro Pro Pro Pr  
 1165 450 455 460  
 1166 Gly Cys Ser  
 1167 465

1168 <210> 181  
 1169 <211> 284  
 1170 <212> PRT  
 1171 <213> homo sapiens  
 1172 <400> 181

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 1174 1 5 10 15  
 1175 Thr Ala Arg Val Phe Met Lys Ser Val Lys Leu Glu Trp Val Gln As  
 1176 20 25 30  
 1177 Asn Ile Arg Ala Ala Gln Asp Leu Cys Glu Glu Ala Leu Arg His Ty  
 1178 35 40 45  
 1179 Glu Asp Phe Pro Lys Leu Trp Met Met Lys Gly Gln Ile Glu Glu Gl  
 1180 50 55 60  
 1181 Lys Glu Met Met Glu Lys Ala Arg Glu Ala Tyr Asn Gln Gly Leu Ly  
 1182 65 70 75 8  
 1183 Lys Cys Pro His Ser Thr Pro Leu Trp Leu Leu Ser Arg Leu Gl  
**E--> 1184** 85 90 95  
 1185 Glu Lys Ile Gly Gln Leu Thr Arg Ala Arg Ala Ile Leu Glu Lys Se  
 1186 100 105 110  
 1187 Arg Leu Lys Asn Pro Lys Asn Pro Gly Leu Trp Leu Glu Ser Val Ar  
 1188 115 120 125  
 1189 Leu Glu Tyr Arg Ala Gly Leu Lys Asn Ile Ala Asn Thr Leu Met Al  
 1190 130 135 140  
 1191 Lys Ala Leu Gln Glu Cys Pro Asn Ser Gly Ile Leu Trp Ser Glu Al  
 1192 145 150 155 16  
 1193 Ile Phe Leu Glu Ala Arg Pro Gln Arg Arg Thr Lys Ser Val Asp Al  
**E--> 1194** 165 170 175  
 1195 Leu Lys Lys Cys Glu His Asp Pro His Val Leu Leu Ala Val Ala Ly  
 1196 180 185 190  
 1197 Leu Phe Trp Ser Gln Arg Lys Ile Thr Lys Ala Arg Glu Trp Phe Hi  
 1198 195 200 205  
 1199 Arg Thr Val Lys Ile Asp Ser Asp Leu Gly Asp Ala Trp Ala Phe Ph  
 1200 210 215 220  
 1201 Tyr Lys Phe Glu Leu Gln His Gly Thr Glu Glu Gln Gln Glu Glu Vi  
 1202 225 230 235 24  
 1203 Arg Lys Arg Cys Glu Ser Ala Glu Pro Arg His Gly Glu Leu Trp Cj  
**E--> 1204** 245 250 255

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

 DATE: 12/14/2000  
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Input Set: I646569.RAW

1205	Ala	Val	Ser	Lys	Asp	Ile	Ala	Asn	Trp	Gln	Lys	Lys	Ile	Gly	Asp	Il
1206				260					265							270
1207	Leu	Arg	Leu	Val	Ala	Gly	Arg	Ile	Lys	Asn	Thr	Phe				
1208				275					280							

1209 &lt;210&gt; 184

1210 &lt;211&gt; 117

1211 &lt;212&gt; PRT

1212 &lt;213&gt; homo sapiens

1213 &lt;400&gt; 184

*Murie*

1214	Gln	Gly	Thr	Arg	His	Pro	Gln	Ser	Leu	Ser	His	Lys	Pro	Ala	Lys	Ly
1215	1				5					10					15	
1216	Ile	Asp	Val	Ala	Arg	Val	Thr	Phe	Asp	Leu	Tyr	Lys	Leu	Asn	Pro	Gl
1217					20					25				30		
1218	Asp	Phe	Ile	Gly	Cys	Leu	Asn	Val	Lys	Ala	Thr	Phe	Tyr	Asp	Thr	Ty
1219				35					40				45			
1220	Ser	Leu	Ser	Tyr	Asp	Leu	His	Cys	Cys	Gly	Ala	Lys	Arg	Ile	Met	Ly
1221				50					55				60			
1222	Glu	Ala	Phe	Arg	Trp	Ala	Leu	Phe	Ser	Met	Gln	Ala	Thr	Gly	His	Va
1223					65				70				75			8
1224	Leu	Leu	Gly	Thr	Ser	Cys	Tyr	Leu	Gln	Gln	Leu	Leu	Asp	Ala	Thr	Gl
E--> 1225					85					90				95		
1226	Glu	Gly	Gln	Pro	Pro	Lys	Gly	Lys	Ala	Ser	Ser	Leu	Ile	Pro	Thr	Cy
1227				100					105					110		
1228	Leu	Lys	Ile	Leu	Gln											
1229				115												

1230 &lt;210&gt; 185

1231 &lt;211&gt; 143

1232 &lt;212&gt; PRT

1233 &lt;213&gt; homo sapiens

1234 &lt;400&gt; 185

*Murie*

1235	Lys	Ser	Ala	Ala	Gln	Thr	Ala	Met	Thr	Thr	Pro	Pro	Gln	Thr	Pro	Pr
1236	1				5					10				15		
1237	His	Pro	Tyr	Phe	Ile	Asn	Arg	Gln	Asp	Phe	Pro	Cys	Ile	Leu	Leu	Ar
1238					20					25				30		
1239	Ile	Ser	Ser	Ser	His	Ser	Pro	Ala	Pro	Ser	Pro	Met	Ser	Trp	Leu	Hi
1240					35					40			45			
1241	His	Cys	Lys	Thr	Asp	Leu	Leu	Gln	Gly	Ser	Gln	Lys	Leu	Leu	Leu	Al
1242					50					55			60			
1243	Leu	Tyr	His	Phe	Tyr	Pro	His	Leu	Pro	Pro	Glu	Thr	Ala	Thr	Ile	Hi
1244					65					70			75			8
1245	Ser	His	Cys	Pro	Ser	Ala	Leu	Arg	Pro	Ser	Ser	Arg	Ala	Asp	Gly	Se
E--> 1246					85					90			95			
1247	Met	Val	Ile	Leu	Ser	Trp	Val	Val	Leu	Leu	Lys	Pro	Ser	Gln	Gly	Al
1248					100					105			110			
1249	Asp	Ser	Gln	Arg	Ala	Ser	Arg	Val	Ser	Gly	Leu	Asp	Asp	Ser	Lys	Si
1250					115					120			125			
1251	Gly	Thr	Pro	Ile	Phe	Ile	Phe	Lys	Thr	Asp	Ile	Pro	Arg	Gly	Phe	
1252					130					135			140			

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**RAW SEQUENCE LISTING**  
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1253 <210> 187  
 1254 <211> 114  
 1255 <212> PRT  
*Murle'*  
 1256 <213> homo sapiens  
 1257 <400> 187  
 1258 Arg His Trp Gly Phe Thr Ala Ser Ile Phe Ser Leu Lys Arg Phe Il  
 1259 1 5 10 15  
 1260 Thr Ser Thr Ser Lys Glu Gln Thr Asn Trp Arg Asn Val Cys Phe Ph  
 1261 20 25 30  
 1262 Phe Leu Phe Ile Lys Phe Tyr Ser Thr Ala Lys Phe Gln Ile Ser Ph  
 1263 35 40 45  
 1264 Thr Tyr Arg Pro Cys Lys Gly Thr Val Arg Thr Glu His Leu Phe Ty  
 1265 50 55 60  
 1266 Leu Arg Asp Lys Gly Val Glu Ile Phe Ser Leu Asn Phe Ile Arg Ly  
 1267 65 70 75 8  
 1268 Gly Trp Val Gln Trp Leu Met Pro Val Ile Ser Ala Phe Trp Glu Al  
**E--> 1269** 85 90 95  
 1270 Glu Ala Gly Arg Ser Leu Val Ala Arg Ser Leu Arg Pro Ala Trp Al  
 1271 100 105 110  
 1272 Thr Gln

1273 <210> 188  
 1274 <211> 98  
*Murle'*  
 1275 <212> PRT  
 1276 <213> homo sapiens  
 1277 <400> 188  
 1278 Asn Leu Ile Asn Lys Lys Lys His Thr Phe Leu Gln Leu Val Cy  
 1279 1 5 10 15  
 1280 Ser Leu Leu Val Glu Val Ile Asn Arg Phe Lys Glu Lys Ile Leu Al  
 1281 20 25 30  
 1282 Val Asn Pro Gln Cys Leu Gln Leu Phe Trp Gln Asn Ile Phe Lys Gl  
 1283 35 40 45  
 1284 Ile Gln Gln Ala Asn Phe Glu Val Leu Met Lys Val Lys Glu Gly Gl  
 1285 50 55 60  
 1286 Ile Ser Ser Phe Gly Arg Asn Glu Lys Cys Leu Thr Arg Asp Ile Th  
 1287 65 70 75 8  
 1288 Thr His Val Gly Ser Gly Cys Phe Leu Pro Lys Thr Phe Arg Glu Gl  
**E--> 1289** 85 90 95  
 1290 Val Asn

1291 <210> 189  
 1292 <211> 437  
*Murle'*  
 1293 <212> PRT  
 1294 <213> homo sapiens  
 1295 <400> 189  
 1296 Lys Tyr Glu Leu Tyr Thr Glu Asn Ala Thr Thr Glu Lys Thr Glu P.  
 1297 1 5 10 15  
 1298 Asn Ser Gln Glu Asp Lys Asn Asp Gly Gly Lys Ser Arg Lys Gly A  
 1299 20 25 30

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*M*yr  
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1300	Ile	Glu	Leu	Ala	Ser	Ser	Glu	Pro	Gln	His	Phe	Thr	Thr	Thr	Val	Th
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1303		50					55				60					
1304	Leu	Lys	Asn	Asp	Val	Ser	Glu	Glu	Lys	Asp	Gln	Lys	Lys	Pro	Glu	As
1305		65				70				75						8
1306	Glu	Met	Ser	Gly	Lys	Val	Glu	Leu	Val	Leu	Ser	Gln	Lys	Val	Val	Ly
E--> 1307					85					90					95	
1308	Pro	Lys	Ser	Pro	Glu	Pro	Glu	Ala	Thr	Leu	Thr	Phe	Pro	Phe	Leu	As
1309				100					105					110		
1310	Lys	Met	Pro	Glu	Ala	Asn	Gln	Leu	His	Leu	Pro	Asn	Leu	Asn	Ser	Gl
1311			115						120				125			
1312	Val	Asp	Ser	Pro	Ser	Ser	Glu	Lys	Ser	Pro	Val	Met	Thr	Pro	Phe	Ly
1313		130					135				140					
1314	Phe	Trp	Ala	Trp	Asp	Pro	Glu	Glu	Glu	Arg	Arg	Arg	Gln	Glu	Lys	Tr
1315		145				150				155						16
E--> 1316	Gln	Gln	Glu	Gln	Glu	Arg	Leu	Leu	Gln	Glu	Arg	Tyr	Gln	Lys	Glu	Gl
1317					165					170					175	
1318	Asp	Lys	Leu	Lys	Glu	Glu	Trp	Glu	Lys	Ala	Gln	Lys	Glu	Val	Glu	Gl
1319			180						185					190		
1320	Glu	Glu	Arg	Arg	Tyr	Tyr	Glu	Glu	Glu	Arg	Lys	Ile	Ile	Glu	Asp	Th
1321		195						200					205			
1322	Val	Val	Pro	Phe	Thr	Val	Ser	Ser	Ser	Ser	Ala	Asp	Gln	Leu	Ser	Th
1323		210					215					220				
1324	Ser	Ser	Ser	Met	Thr	Glu	Gly	Ser	Gly	Thr	Met	Asn	Lys	Ile	Asp	Le
1325		225				230					235					24
E--> 1326	Gly	Asn	Cys	Gln	Asp	Glu	Lys	Gln	Asp	Arg	Arg	Trp	Lys	Lys	Ser	Ph
1327					245					250					255	
1328	Gln	Gly	Asp	Asp	Ser	Asp	Leu	Leu	Leu	Lys	Thr	Arg	Glu	Ser	Asp	Ar
1329			260						265					270		
1330	Leu	Glu	Glu	Lys	Gly	Ser	Leu	Thr	Glu	Gly	Ala	Leu	Ala	His	Ser	Gl
1331		275						280					285			
1332	Asn	Pro	Val	Ser	Lys	Gly	Val	His	Glu	Asp	His	Gln	Leu	Asp	Thr	Gl
1333		290					295					300				
1334	Ala	Gly	Ala	Pro	His	Cys	Gly	Thr	Asn	Pro	Gln	Leu	Ala	Gln	Asp	Pr
1335		305				310					315					32
E--> 1336	Ser	Gln	Asn	Gln	Gln	Thr	Ser	Asn	Pro	Thr	His	Ser	Ser	Glu	Asp	Va
1337					325					330					335	
1338	Lys	Pro	Lys	Thr	Leu	Pro	Leu	Asp	Lys	Ser	Ile	Asn	His	Gln	Ile	Gl
1339			340						345					350		
1340	Ser	Pro	Ser	Glu	Arg	Arg	Lys	Ser	Ile	Ser	Gly	Lys	Lys	Leu	Cys	Se
1341		355						360					365			
1342	Ser	Cys	Gly	Leu	Pro	Leu	Gly	Lys	Gly	Ala	Ala	Met	Ile	Ile	Glu	Th
1343		370					375					380				
1344	Leu	Asn	Leu	Tyr	Phe	His	Ile	Gln	Cys	Phe	Arg	Cys	Gly	Ile	Cys	Ly
1345		385				390					395					40
E--> 1346	Gly	Gln	Leu	Gly	Asp	Ala	Val	Ser	Gly	Thr	Asp	Val	Arg	Ile	Arg	As
1347					405					410					415	
1348	Gly	Leu	Leu	Asn	Cys	Asn	Asp	Cys	Tyr	Met	Arg	Ser	Arg	Ser	Ala	GJ
1349					420					425					430	

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1353	<211>	331															
1354	<212>	PRT															
1355	<213>	homo sapiens															
1356	<400>	190															
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1358	1				5					10					15		
1359	Val	Glu	Val	Glu	Glu	Leu	Leu	Arg	Gln	Ala	Ser	Glu	Arg	Asn	Ser	Ly	
1360				20						25				30			
1361	Ser	Pro	Thr	Glu	Tyr	His	Glu	Pro	Val	Tyr	Ala	Asn	Pro	Phe	Tyr	Ar	
1362			35					40					45				
1363	Pro	Thr	Thr	Pro	Gln	Arg	Glu	Thr	Val	Thr	Pro	Gly	Pro	Asn	Phe	Gl	
1364			50			55						60					
1365	Glu	Arg	Ile	Lys	Ile	Lys	Thr	Asn	Gly	Leu	Gly	Ile	Gly	Val	Asn	Gl	
1366					70						75					8	
1367	Ser	Ile	His	Asn	Met	Gly	Asn	Gly	Leu	Ser	Glu	Glu	Arg	Gly	Asn	As	
E--> 1368					85					90					95		
1369	Phe	Asn	His	Ile	Ser	Pro	Ile	Pro	Pro	Val	Pro	His	Pro	Arg	Ser	Va	
1370				100					105					110			
1371	Ile	Gln	Gln	Ala	Glu	Glu	Lys	Leu	His	Thr	Pro	Gln	Lys	Arg	Leu	Me	
1372			115					120					125				
1373	Thr	Pro	Trp	Glu	Glu	Ser	Asn	Val	Met	Gln	Asp	Lys	Asp	Ala	Pro	Se	
1374			130				135					140					
1375	Pro	Lys	Pro	Arg	Leu	Ser	Pro	Arg	Glu	Thr	Ile	Phe	Gly	Lys	Ser	Gl	
1376			145			150					155					16	
E--> 1377	His	Gln	Asn	Ser	Ser	Pro	Thr	Cys	Gln	Glu	Asp	Glu	Glu	Asp	Val	Ar	
					165					170					175		
1379	Tyr	Asn	Ile	Val	His	Ser	Leu	Pro	Pro	Asp	Ile	Asn	Asp	Thr	Glu	Pr	
1380				180					185					190			
1381	Val	Thr	Met	Ile	Phe	Met	Gly	Tyr	Gln	Gln	Ala	Glu	Asp	Ser	Glu	Gl	
1382			195				200					205					
1383	Asp	Lys	Lys	Phe	Leu	Thr	Gly	Tyr	Asp	Gly	Ile	Ile	His	Ala	Glu	Le	
1384			210				215					220					
1385	Val	Val	Ile	Asp	Asp	Glu	Glu	Glu	Asp	Glu	Gly	Glu	Ala	Glu	Ly		
1386			225			230					235					24	
1387	Pro	Ser	Tyr	His	Pro	Ile	Ala	Pro	His	Ser	Gln	Val	Tyr	Gln	Pro	Al	
E--> 1388					245					250					255		
1389	Lys	Pro	Thr	Pro	Leu	Pro	Arg	Lys	Arg	Ser	Glu	Ala	Ser	Pro	His	Gl	
1390				260					265					270			
1391	Asn	Thr	Asn	His	Lys	Ser	Pro	His	Lys	Asn	Ser	Ile	Ser	Leu	Lys	Gl	
1392			275				280					285					
1393	Gln	Glu	Glu	Ser	Leu	Gly	Ser	Pro	Val	His	His	Ser	Pro	Phe	Asp	Al	
1394			290			295					300						
1395	Gln	Thr	Thr	Gly	Asp	Gly	Thr	Glu	Asp	Pro	Ser	Leu	Thr	Ala	Leu	Ar	
1396			305			310					315						
1397	Met	Arg	Met	Ala	Lys	Leu	Gly	Lys	Lys	Val	Ile						
E--> 1398					325					330							

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1399 <210> 191  
 1400 <211> 216  
 1401 <212> PRT  
 1402 <213> homo sapiens *Murine'*  
 1403 <400> 191

1404	Leu	Ser	Leu	Thr	Ser	Arg	Met	Glu	Glu	Ala	Glu	Leu	Val	Lys	Gly	Ar	
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1406	Leu	Gln	Ala	Ile	Thr	Asp	Lys	Arg	Lys	Ile	Gln	Glu	Glu	Ile	Ser	Gl	
1407				20					25					30			
1408	Lys	Arg	Leu	Lys	Ile	Glu	Glu	Asp	Lys	Leu	Lys	His	Gln	His	Leu	Ly	
1409				35				40					45				
1410	Lys	Lys	Ala	Leu	Arg	Glu	Lys	Trp	Leu	Leu	Asp	Gly	Ile	Ser	Ser	Gl	
1411				50			55				60						
1412	Lys	Glu	Gln	Glu	Glu	Met	Lys	Lys	Gln	Asn	Gln	Gln	Asp	Gln	His	Gl	
1413						70				75					8		
E-->	1414	Ile	Gln	Val	Leu	Glu	Gln	Ser	Ile	Leu	Arg	Leu	Glu	Lys	Glu	Ile	Gl
	1415				85					90					95		
	1416	Asp	Leu	Glu	Lys	Ala	Glu	Leu	Gln	Ile	Ser	Thr	Lys	Glu	Glu	Ala	Il
	1417				100					105					110		
	1418	Leu	Lys	Lys	Leu	Lys	Ser	Ile	Glu	Arg	Thr	Thr	Glu	Asp	Ile	Ile	Ar
	1419				115				120					125			
	1420	Ser	Val	Lys	Val	Glu	Arg	Glu	Glu	Arg	Ala	Glu	Glu	Ser	Ile	Glu	As
	1421				130			135				140					
	1422	Ile	Tyr	Ala	Asn	Ile	Pro	Asp	Leu	Pro	Lys	Ser	Tyr	Ile	Pro	Ser	Ar
	1423				145			150			155					16	
E-->	1424	Leu	Arg	Lys	Glu	Ile	Asn	Glu	Glu	Lys	Glu	Asp	Asp	Glu	Gln	Asn	Ar
	1425				165					170					175		
	1426	Lys	Ala	Leu	Tyr	Ala	Met	Glu	Ile	Lys	Val	Glu	Lys	Asp	Leu	Lys	Th
	1427				180					185					190		
	1428	Gly	Glu	Ser	Thr	Val	Leu	Ser	Ser	Asn	Thr	Ser	Gly	His	Gln	Met	Th
	1429				195				200					205			
	1430	Leu	Lys	Gly	Thr	Gly	Val	Lys	Val								
	1431				210				215								

1432 <210> 192  
 1433 <211> 290  
 1434 <212> PRT  
 1435 <213> homo sapiens *Murine'*  
 1436 <400> 192

1437	Arg	Gly	Ala	Gly	Thr	Gln	Pro	Gly	Pro	Leu	Leu	Lys	Lys	Pro	Tyr	Gl
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1440					20				25					30		
1441	Val	Val	Asp	Phe	Pro	Leu	Ser	Arg	Leu	Thr	Val	Cys	Phe	Asn	Ile	As
1442				35				40					45			
1443	Gly	Gln	Pro	Gly	Asp	Ile	Leu	Arg	Leu	Val	Ser	Asp	His	Arg	Asp	Se
1444				50				55					60			
1445	Gly	Val	Thr	Val	Asn	Gly	Glu	Leu	Ile	Gly	Ala	Pro	Ala	Pro	Pro	As
1446				65			70				75					

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*Darne*

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	1449	Asn	Lys	Pro	Glu	Arg	Ser	Tyr	Leu	Glu	Ile	Thr	Pro	Ser	Arg	Val	Il
	1450				100						105					110	
	1451	Leu	Asp	Gly	Gly	Asp	Arg	Leu	Val	Leu	Pro	Cys	Asn	Gln	Ser	Val	Va
	1452				115						120					125	
	1453	Val	Gly	Ser	Trp	Gly	Leu	Glu	Val	Ser	Val	Ser	Ala	Asn	Ala	Asn	Va
	1454				130						135					140	
	1455	Thr	Val	Thr	Ile	Gln	Gly	Ser	Ile	Ala	Phe	Val	Ile	Leu	Ile	His	Le
	1456						150									16	
	1457	Tyr	Lys	Lys	Pro	Ala	Pro	Phe	Gln	Arg	His	His	Leu	Gly	Phe	Tyr	Il
	<b>1458</b>					165						170				<b>175</b>	
	1459	Ala	Asn	Ser	Glu	Gly	Leu	Ser	Ser	Asn	Cys	His	Gly	Leu	Leu	Gly	G1
	1460				180						185					190	
	1461	Phe	Leu	Asn	Gln	Asp	Ala	Arg	Leu	Thr	Glu	Asp	Pro	Ala	Gly	Pro	Se
	1462				195						200					205	
	1463	Gln	Asn	Leu	Thr	His	Pro	Leu	Leu	Leu	Gln	Val	Gly	Glu	Gly	Pro	G1
	1464				210						215					220	
	1465	Ala	Val	Leu	Thr	Val	Lys	Gly	His	Gln	Val	Pro	Val	Val	Trp	Lys	G1
	1466						230									24	
	1467	Arg	Lys	Ile	Tyr	Asn	Gly	Glu	Glu	Gln	Ile	Asp	Cys	Trp	Phe	Ala	Ar
	<b>1468</b>					245						250				<b>255</b>	
	1469	Asn	Asn	Ala	Ala	Lys	Leu	Ile	Asp	Gly	Glu	Tyr	Lys	Asp	Tyr	Leu	Al
	1470					260					265					270	
	1471	Ser	His	Pro	Phe	Asp	Thr	Gly	Met	Thr	Leu	Gly	Gln	Gly	Met	Ser	Ar
	1472					275					280					285	
	1473	Glu	Leu														
	1474				290												

1475	<210>	193	<i>Mur</i>														
1476	<211>	87															
1477	<212>	PRT															
1478	<213>	homo sapiens															
1479	<400>	193															
1480	Gly	His	Gly	Ser	Tyr	Arg	Thr	Pro	Lys	Arg	Ser	Ser	Thr	Asn	Cys	Le	
1481		1			5					10					15		
1482	Gly	Lys	Phe	Trp	Glu	Leu	Ala	Asp	Ala	Lys	Lys	Lys	Arg	Lys	Lys	Va	
1483					20					25					30		
1484	His	Gln	Lys	Gln	Lys	Arg	Ala	Thr	Ile	Arg	Ala	Thr	Glu	Leu	Ala	Ly	
1485					35					40					45		
1486	Gly	Lys	Arg	His	Val	Gly	Gly	Ser	Val	Ser	His	Leu	Ser	Pro	Gly	Th	
1487					50					55					60		
1488	Val	Lys	Cys	Val	Ile	Thr	Ala	Gln	Val	His	Gly	Lys	Arg	Gln	Gln	G1	
1489																	3
1490	Lys	Ala	Leu	Cys	Arg	Leu	Glu										
E-->	<b>1491</b>				85												

1492	<210>	195
1493	<211>	251
1494	<212>	PRT

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1495 <213> homo sapiens *Mur*

1496 <400> 195

1497	Asp	Asp	Arg	Ser	His	Ala	Phe	His	His	His	Lys	Ser	Val	Ile	Asp	Al	
1498	1				5					10					15		
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1500				20						25				30			
1501	Thr	Gly	Arg	Val	Pro	Gly	Thr	Arg	Gln	Met	Leu	Gln	Asp	Ser	Val	Gl	
1502				35				40					45				
1503	Ala	Ala	Leu	Glu	Glu	Val	Ala	Ala	Ser	Glu	Ala	Leu	Leu	Gly	Pro	Le	
1504				50				55				60					
1505	Ser	Pro	Pro	Gly	Lys	Ser	Arg	Asp	Gly	Asn	Ala	Ser	Ala	Gly	Glu	Gl	
1506					70						75				8		
1507	Cys	Gln	Val	Phe	Arg	Ser	Pro	Pro	Ser	Glu	Val	Pro	Ser	Pro	Pro	Gl	
E-->	<b>1508</b>				<b>85</b>					<b>90</b>					<b>95</b>		
1509	Gln	Asp	Thr	Pro	Thr	Ser	Thr	Phe	Leu	Lys	Arg	Arg	Trp	Asp	Ser	Gl	
1510				100					105					110			
1511	Val	Thr	Leu	Leu	Pro	Ser	Lys	Lys	Cys	Lys	Ser	Gln	Gln	Leu	Gln	Gl	
1512				115					120					125			
1513	Ser	Val	Ser	Gln	Phe	Pro	Pro	Ser	Pro	Gly	Gly	Arg	Arg	Glu	Gly	Pr	
1514				130				135				140					
1515	Trp	Ser	Ser	Leu	Gly	Ala	Gly	Gly	Pro	Ser	Ser	His	Ile	Ser	Ala	Ly	
1516					150						155				16		
E-->	<b>1517</b>	Tyr	Phe	Pro	Leu	Pro	Val	Gln	Pro	Ala	Cys	Pro	Cys	Thr	Ser	Leu	Gl
1518					<b>165</b>					<b>170</b>					<b>175</b>		
1519	Ala	Gly	His	Arg	Pro	Gly	Arg	Cys	Val	Asp	Leu	Gln	Glu	Ser	Gln	Gl	
1520				180					185					190			
1521	Val	Asp	His	Pro	Ala	Asn	Leu	Arg	Leu	Ser	Ser	Gly	Thr	Ser	Cys	Ar	
1522				195					200					205			
1523	Arg	Gly	Leu	Asn	Pro	Thr	Pro	Val	Gln	Val	Arg	Ser	His	Glu	Ala	Se	
1524				210				215				220					
1525	Ser	Gln	Val	Lys	Met	His	Gln	Thr	Val	Thr	Trp	Arg	Phe	Tyr	Thr	Ph	
1526					230						235					24	
E-->	<b>1527</b>	Leu	Asn	Phe	Gln	Gln	Leu	Gly	Ala	Cys	Leu	Leu					
1528					<b>245</b>					<b>250</b>							

1529 <210> 196 *Jan*

1530 <211> 149

1531 <212> PRT

1532 <213> homo sapiens

1533 <400> 196

1534	Phe	Ala	Lys	Gly	Leu	Asp	Arg	Glu	Arg	Gly	Asn	Met	Asn	Leu	Asp	Ar
1535	1				5					10				15		
1536	Glu	Gly	Asp	Thr	Ile	Glu	Arg	Arg	Thr	Leu	Pro	Thr	Leu	Gln	Ala	Se
1537				20					25					30		
1538	Asp	Leu	Pro	Phe	Glu	Gly	Thr	Leu	Asp	Gly	Gly	Arg	Gly	Arg	Gly	Le
1539				35					40				45			
1540	Gly	Leu	Ser	Tyr	Ser	His	Glu	Leu	Leu	Ala	Ser	Thr	Asp	Ser	Ser	A.
1541				50					55				60			
1542	Ser	Pro	Pro	His	Lys	Ile	Thr	Gly	Thr	Asn	Ile	Phe	Asn	Phe	Ala	Ty
1543					70						75					?

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**E--> 1544** Leu Phe Leu Gly Glu 85 Phe Pro Pro Ser Leu Phe Cys Pro Glu Thr Th  
**1545** Gly Lys Ala Leu His Phe Glu Arg Glu Glu Lys Leu Phe Gly Thr Th  
 1546 100 105  
 1547 110  
 1548 Pro Met Ile Phe Phe Phe Val Ile Leu Glu Ile Tyr Phe Phe Ile Il  
 1549 115 120 125  
 1550 Leu Ile Ala Asp Val Leu Phe Ile Tyr Leu Ile Cys Ile Arg Ser Le  
 1551 130 135 140  
 1552 Asn Asn Arg Lys Leu  
 1553 145

1554 <210> 197  
 1555 <211> 143  
 1556 <212> PRT  
 1557 <213> homo sapiens  
 1558 <400> 197

**E--> 1559** Gly Gln Arg Cys Pro Arg Gly Thr Asp Leu Pro Glu Ala Pro Thr Le  
 1560 1 5 10 15  
 1561 Pro Leu Trp Val Asn His Phe Ser Pro Gly Leu Ser Leu Arg Leu Hi  
 1562 20 25 30  
 1563 Gln Leu Val Gly Leu Gln Ala Ser Pro Pro Asp Ser Pro His Cys Tr  
 1564 35 40 45  
 1565 Ala Thr Leu Asn Leu Lys Phe His Cys Pro Ala Pro Pro Thr Pro Th  
 1566 50 55 60 8  
 1567 Pro Lys Phe Pro Lys Glu Met Ser Lys Thr His Ala His Thr Tyr Il  
 1568 65 70 75 80  
 1569 His Thr Cys Thr Cys Ala His Thr Ser Cys Val Thr Thr Gly Gln Gl  
**E--> 1570** 85 90 95  
 1571 Asn Ala Ser Leu Arg Ile Pro Gly Pro Gly Pro Gly Val Lys Gly Cy  
 1572 100 105 110  
 1573 Ser Gly Thr Leu Pro Pro Asn Leu Leu Gly Gly Pro Pro Ser Val Gl  
 1574 115 120 125  
 1575 Ala Gly Leu Gly Val Cys Leu Asp Ser Gln Asp Leu Pro Arg Ser  
 1576 130 135 140

1577 <210> 198  
 1578 <211> 142  
 1579 <212> PRT  
 1580 <213> homo sapiens  
 1581 <400> 198

**E--> 1582** Ser His Thr Met His Cys Lys Glu Thr Lys Gln Leu Tyr Arg Ser Gl  
 1583 1 5 10 15  
 1584 Asp Ala Ser Val Tyr Asn Thr Phe Met Ser Arg Ile Arg Ser Arg Hi  
 1585 20 25 30  
 1586 Gln Asp Leu Tyr Thr Val Ala Ala Ile Gly Thr Met Ile Gln Asp  
 1587 35 40 45  
 1588 Ile Lys Tyr Ile Ser Ile Tyr Ile Asn Thr Gln Leu Gly Trp Gly Ar  
 1589 50 55 60  
 1590 Met Leu Gly Asp Leu Val Ser Pro Ala Glu Gly Leu Gly Gly Arg Gl  
 1591 65 70 75 80

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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/646,569**

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**E-->** 1592 Gly Gly Gly Lys Gly Phe Leu Thr Phe Val Leu Asn Asp Gly Ser Gl  
**1593** 85  
 1594 Gly Arg Arg Glu Met Gly Lys His Ser Leu His Thr Leu Met Cys Se  
 1595 100  
 1596 His Thr His Ala Gln Thr Lys His Arg His Arg Arg Val Ser Asn Se  
 1597 115  
 1598 Leu Thr Leu Ile Gly Lys Gln Ala Trp Asp Ile Pro Leu Gln  
 1599 130 135 140

---

1600 <210> 199  
 1601 <211> 189  
 1602 <212> PRT  
 1603 <213> homo sapiens  
 1604 <400> 199

**E-->** 1605 Gln Cys Arg Gly Phe Asn Leu Lys Ala Tyr Arg Asn Ala Ala Glu Il  
 1606 1 5  
 1607 Val Gln Tyr Gly Val Lys Asn Asn Thr Thr Phe Leu Glu Cys Ala Pr  
 1608 20  
 1609 Lys Ser Pro Gln Ala Ser Ile Lys Trp Leu Leu Gln Lys Asp Lys As  
 1610 35  
 1611 Arg Arg Lys Glu Val Lys Leu Asn Glu Arg Ile Ile Ala Thr Ser Gl  
 1612 50  
 1613 Gly Leu Leu Ile Arg Ser Val Gln Gly Ser Asp Gln Gly Leu Tyr Hi  
 1614 65  
 1615 Cys Ile Ala Thr Glu Asn Ser Phe Lys Gln Thr Ile Ala Lys Ile As  
**E-->** 1616 85 90  
 1617 Phe Lys Val Leu Asp Ser Glu Met Val Ala Val Val Thr Asp Lys Tr  
 1618 100  
 1619 Ser Pro Trp Thr Trp Ala Ser Ser Val Arg Ala Leu Pro Phe His Pr  
 1620 115  
 1621 Lys Asp Ile Met Gly Ala Phe Ser His Ser Glu Met Gln Met Ile As  
 1622 130  
 1623 Gln Tyr Cys Lys Asp Thr Arg Gln Gln His Gln Gln Gly Asp Glu Se  
 1624 145  
 1625 Gln Lys Met Arg Gly Asp Tyr Gly Lys Leu Lys Ala Leu Ile Asn Se  
**E-->** 1626 165 170  
 1627 Arg Lys Ser Arg Asn Arg Arg Asn Gln Leu Pro Glu Ser  
 1628 180 185

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1629 <210> 200  
 1630 <211> 97  
 1631 <212> PRT  
 1632 <213> homo sapiens  
 1633 <400> 200

1634 Phe Phe Arg Glu Ala Glu Ser Pro Phe Val Ala Arg Leu Glu Cys Se  
 1635 1 5 10  
 1636 Gly Ala Ile Ser Ala His Cys Ser Thr Val Ser Ala His Cys Ser Le  
 1637 20 25 30  
 1638 Arg Pro Pro Val Phe Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Se  
 1639 35 40 45

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**PATENT APPLICATION US/09/646,569**

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**RAW SEQUENCE LISTING**  
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*Same*

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1691	Pro	Arg	Gln	Gln	Gln	Arg	Gln	Gln	Gln	Thr	Phe	Gly	Ile	Leu	Phe	Se			
1692					20					25					30				
1693	Thr	His	Val	Leu	Ile	Ile	His	Leu	Ile	Ile	Phe	Leu	Val	Glu	Lys	Le			
1694				35				40					45						
1695	Gln	Ile	Ser	Leu	Phe	Asn	Ile	Tyr	Ile	Gln	Phe	Asn	Lys	Pro	Leu	Al			
1696		50					55				60								
1697	Ser	Tyr	Leu	Phe	Ser	His	Leu	Arg	Tyr	Phe	Phe	Pro	Pro	His	Leu	Al			
1698		65				70				75						8			
1699	Pro	Val	Pro	Pro	Phe	Leu	Phe	Ser	Leu	Cys	Lys	Arg	Lys	Tyr	Leu	Th			
E--> 1700					85					90						95			
1701	Tyr	Leu	Gly	Pro	Thr	Ser	Ile	Met											
1702				100															

*Same*

1703	<210>	203																
1704	<211>	93																
1705	<212>	PRT																
1706	<213>	homo sapiens																
1707	<400>	203																
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1709	1				5					10				15				
1710	Trp	Gln	Ile	Ser	Gln	His	Phe	Ser	Leu	Phe	Cys	Leu	Cys	Leu	Ser	Le		
1711				20					25					30				
1712	Cys	Ile	Phe	Leu	Glu	Arg	Lys	Leu	Asn	Ala	Phe	Asn	Val	Leu	Ile	Il		
1713		35					40						45					
1714	Thr	Leu	Leu	Lys	Leu	Asp	Pro	Asn	Met	Leu	Asn	Ile	Ser	Ser	Cys	Ly		
1715		50				55					60							
1716	Gly	Arg	Arg	Gly	Arg	Glu	Glu	Gln	Gly	Gln	Gly	Gly	Glu	Glu	Lys	As		
1717		65				70					75						8	
E--> 1718	Thr	Ser	Gly	Glu	Arg	85	Thr	Ser	Asn	Leu	Gln	Glu	Ala	Tyr				
1719										90								

*Same*

1720	<210>	204																
1721	<211>	113																
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1727	Val	Leu	Val	Met	Leu	Lys	Gln	Thr	Glu	Asn	Asn	Tyr	Leu	Glu	Cys	Gl		
1728				20					25					30				
1729	Lys	Gly	Glu	Asp	Thr	Gly	Arg	Val	His	Leu	Ser	Gln	Met	Lys	Ile	Il		
1730		35					40						45					
1731	Thr	Pro	Leu	Asp	Glu	His	Leu	Arg	Ser	Arg	Pro	Asn	Asp	Pro	Ser	Hi		
1732		50				55					60							
1733	Ala	Gln	Lys	Pro	Val	Asp	Ser	Gly	Ala	Pro	His	Ala	Val	Val	Leu	Hi		
1734		65				70					75						8	
1735	Asp	Phe	Pro	Ala	Glu	Gln	Val	Asp	Asp	Leu	Asn	Leu	Thr	Ser	Gly	Gl		

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**E--> 1736**

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1739	Leu														110			

1740 &lt;210&gt; 205

1741 &lt;211&gt; 225

1742 &lt;212&gt; PRT

1743 &lt;213&gt; homo sapiens

1744 &lt;400&gt; 205

**E--> 1756**

1745	Thr	Ser	Leu	Leu	Glu	5	Lys	Leu	Val	Tyr	Leu	Leu	Glu	Lys	Ile	Asp	Th
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1747	Asp	Trp	Tyr	Arg	Gly	20	Asn	Cys	Arg	Asn	Gln	Ile	Gly	Ile	Phe	Pro	Al
1748										25					30		
1749	Asn	Tyr	Val	Lys	Val	Ile	Ile	Asp	Ile	Pro	Glu	Gly	Gly	Asn	Gly	LY	
1750				35						40				45			
1751	Arg	Glu	Cys	Val	Ser	Ser	His	Cys	Val	Lys	Gly	Ser	Arg	Cys	Val	Al	
1752				50						55				60			
1753	Arg	Phe	Glu	Tyr	Ile	Gly	Glu	Gln	Lys	Asp	Glu	Leu	Ser	Phe	Ser	Gl	
1754		65				70					75					8	
1755	Gly	Glu	Ile	Ile	Ile	Leu	Lys	Glu	Tyr	Val	Asn	Glu	Glu	Trp	Ala	Ar	
						85				90					95		
1757	Gly	Glu	Val	Arg	Gly	Arg	Thr	Gly	Ile	Phe	Pro	Leu	Asn	Phe	Val	Gl	
1758				100						105					110		
1759	Pro	Val	Glu	Asp	Tyr	Pro	Thr	Ser	Gly	Ala	Asn	Val	Leu	Ser	Thr	LY	
1760				115						120					125		
1761	Val	Pro	Leu	Lys	Thr	Lys	Lys	Glu	Asp	Ser	Gly	Ser	Asn	Ser	Gln	Va	
1762				130						135					140		
1763	Asn	Ser	Leu	Pro	Ala	Glu	Trp	Cys	Glu	Ala	Leu	His	Ser	Phe	Thr	Al	
1764				145						150					155		16
1765	Glu	Thr	Ser	Asp	Asp	Leu	Ser	Phe	Lys	Arg	Gly	Asp	Arg	Ile	Gln	Il	
					165					170					175		
1767	Leu	Glu	Arg	Leu	Asp	Ser	Asp	Trp	Cys	Arg	Gly	Arg	Leu	Gln	Asp	Ar	
1768				180						185					190		
1769	Glu	Gly	Ile	Phe	Pro	Ala	Val	Phe	Val	Arg	Pro	Cys	Pro	Ala	Glu	Al	
1770				195						200					205		
1771	Lys	Ser	Met	Leu	Ala	Ile	Val	Pro	Lys	Gly	Gln	Glu	Gly	Gln	Ser	Le	
1772				210						215					220		
1773	Ile																
1774	225																

1775 &lt;210&gt; 206

1776 &lt;211&gt; 105

1777 &lt;212&gt; PRT

1778 &lt;213&gt; homo sapiens

1779 &lt;400&gt; 206

1780	Cys	Ile	Gly	Phe	Ser	5	Ser	Gly	Phe	Asp	Lys	Val	Lys	Arg	Ile	Val	Ti
1781		1									10					15	
1782	Arg	Val	Thr	Gln	Thr	Cys	Gln	Leu	Ser	Glu	Ser	Leu	Val	Val	Val	Ly:	P:
1783						20					25					30	

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**RAW SEQUENCE LISTING**  
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*Name'*  
 Input Set: I646569.RAW

1784	Glu	Leu	Gly	Lys	Leu	Ser	Leu	Arg	Arg	Leu	Lys	Glu	Arg	Ala	Gln	Va
1785			35					40					45			
1786	Gly	Ile	Cys	Val	Ile	Thr	Val	Leu	Leu	Pro	Arg	His	Gly	Val	Asp	As
1787		50					55					60				
1788	Lys	Ile	Pro	Leu	Gln	Ser	Thr	Gly	Val	Ser	Val	Arg	Leu	Val	Leu	Gl
1789		65					70				75					8
1790	Lys	Ala	Ala	His	Trp	Glu	Trp	Gly	Gly	Ala	Cys	Gly	Lys	Pro	Asp	Cy
E--> 1791					85					90					95	
1792	Gly	Glu	Lys	Leu	Gly	Glu	Asn	Gly	Ser							
1793				100					105							

1794	<210>	208	<i>Name'</i>														
1795	<211>	581															
1796	<212>	PRT															
1797	<213>	homo sapiens															
1798	<400>	208															
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1801	Leu	Gln	Asp	Cys	Ile	Arg	His	Cys	Asn	Asn	Gly	Ile	Pro	Glu	Asp	Se	
1802				20					25					30			
1803	Lys	Val	Glu	Gly	Pro	Ala	Phe	Thr	Asp	Ala	Ile	Arg	Met	Tyr	Arg	Gl	
1804			35				40				45						
1805	Ser	Lys	Glu	Leu	Tyr	Gly	Thr	Trp	Glu	Met	Leu	Cys	Gly	Asn	Glu	Va	
1806			50			55				60							
1807	Gln	Ile	Leu	Ser	Asn	Leu	Val	Met	Glu	Glu	Leu	Gly	Pro	Glu	Leu	Ly	
1808		65				70				75					8		
1809	Ala	Glu	Leu	Gly	Pro	Arg	Leu	Lys	Gly	Lys	Pro	Gln	Glu	Arg	Gln	Ar	
E--> 1810				85					90					95			
1811	Gln	Trp	Ile	Gln	Ile	Ser	Asp	Ala	Val	Tyr	His	Met	Val	Tyr	Glu	Gl	
1812			100						105					110			
1813	Ala	Lys	Ala	Arg	Phe	Glu	Glu	Val	Leu	Ser	Lys	Val	Gln	Gln	Val	Gl	
1814			115					120				125					
1815	Pro	Ala	Met	Gln	Ala	Val	Ile	Arg	Thr	Asp	Met	Asp	Gln	Ile	Ile	Th	
1816		130				135					140						
1817	Ser	Lys	Glu	His	Leu	Ala	Ser	Lys	Ile	Arg	Ala	Phe	Ile	Leu	Pro	Ly	
1818		145				150					155				16		
1819	Ala	Glu	Val	Cys	Val	Arg	Asn	His	Val	Gln	Pro	Tyr	Ile	Pro	Ser	Il	
E--> 1820				165					170					175			
1821	Leu	Glu	Ala	Leu	Met	Val	Pro	Thr	Ser	Gln	Gly	Phe	Thr	Glu	Val	Ar	
1822			180					185					190				
1823	Asp	Val	Phe	Phe	Lys	Glu	Val	Thr	Asp	Met	Asn	Leu	Asn	Val	Ile	As	
1824			195				200				205						
1825	Glu	Gly	Gly	Ile	Asp	Lys	Leu	Gly	Glu	Tyr	Met	Glu	Lys	Leu	Ser	Ar	
1826		210				215					220						
1827	Leu	Ala	Tyr	His	Pro	Leu	Lys	Met	Gln	Ser	Cys	Tyr	Glu	Lys	Met	GJ	
1828		225				230					235					24	
1829	Ser	Leu	Arg	Leu	Asp	Gly	Leu	Gln	Gln	Arg	Phe	Asp	Val	Ser	Ser	Tb	
E--> 1830				245					250					255			
1831	Ser	Val	Phe	Lys	Gln	Arg	Ala	Gln	Ile	His	Met	Arg	Glu	Gln	Met	As	
1832				260					265					270			

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1833	Asn	Ala	Val	Tyr	Thr	Phe	Glu	Thr	Leu	Leu	His	Gln	Glu	Leu	Gly	Ly
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1836		290					295				300					
1837	Arg	Val	Leu	Lys	Lys	Tyr	Asp	Tyr	Asp	Ser	Ser	Ser	Val	Arg	Lys	Ar
1838		305				310				315				32		
1839	Phe	Phe	Arg	Glu	Ala	Leu	Leu	Gln	Ile	Ser	Ile	Pro	Phe	Leu	Leu	Ly
E--> 1840				325					330					335		
1841	Lys	Leu	Ala	Pro	Thr	Cys	Lys	Ser	Glu	Leu	Pro	Arg	Phe	Gln	Glu	Le
1842				340					345					350		
1843	Ile	Phe	Glu	Asp	Phe	Ala	Arg	Phe	Ile	Leu	Val	Glu	Asn	Thr	Tyr	Gl
1844			355					360					365			
1845	Glu	Val	Val	Leu	Gln	Thr	Val	Met	Lys	Asp	Ile	Leu	Gln	Ala	Val	Ly
1846		370					375					380				
1847	Glu	Ala	Ala	Val	Gln	Arg	Lys	His	Asn	Leu	Tyr	Arg	Asp	Ser	Met	Va
1848		385				390				395				40		
1849	Met	His	Asn	Ser	Asp	Pro	Asn	Leu	His	Leu	Leu	Ala	Glu	Gly	Ala	Pr
E--> 1850				405					410					415		
1851	Ile	Asp	Trp	Gly	Glu	Glu	Tyr	Ser	Asn	Ser	Gly	Gly	Gly	Gly	Ser	Pr
1852			420						425					430		
1853	Ala	Pro	Ala	Pro	Arg	Ser	Gln	Pro	Pro	Ser	Arg	Lys	Ser	Asp	Gly	Al
1854			435					440					445			
1855	Pro	Ser	Arg	Trp	Ser	Leu	Trp	Ser	Arg	Met	Arg	Arg	Trp	Gly	Cys	Pr
1856		450				455					460					
1857	Leu	Arg	Leu	Ala	Leu	Ser	His	His	His	Leu	Arg	Pro	Arg	Thr	Val	Se
1858		465				470				475				48		
1859	Leu	Arg	Ser	Glu	Ala	Cys	Trp	Pro	Lys	Val	Cys	Gly	Leu	Arg	Ala	Pr
E--> 1860				485					490					495		
1861	His	Gln	Pro	Ala	Pro	Cys	Ser	Thr	Gly	Pro	Pro	Leu	Gly	Arg	Val	Pr
1862			500						505					510		
1863	Ser	Leu	Arg	Pro	Pro	Pro	Arg	Pro	Pro	Arg	Arg	Leu	Pro	His	Pro	Se
1864			515					520					525			
1865	Ser	Ile	Ser	Cys	Leu	Glu	Arg	Leu	Trp	Thr	Leu	Gly	Pro	Pro	Ser	Pr
1866			530					535					540			
1867	Ala	Thr	Arg	Arg	Leu	Glu	Ser	Arg	Cys	Pro	Ala	Pro	Ala	Ala	Thr	Pr
1868			545			550					555				56	
1869	Pro	Ser	Thr	Pro	Pro	Pro	Arg	Thr	Val	Gln	Gly	Cys	Arg	Leu	Ser	Se
E--> 1870				565					570					575		
1871	Arg	Pro	Val	Gly	Pro											
1872				580												

1873 &lt;210&gt; 209

1874 &lt;211&gt; 466

1875 &lt;212&gt; PRT

1876 &lt;213&gt; homo sapiens

1877 &lt;400&gt; 209

1878 Pro Gln Arg Ala Ala Pro Pro Pro His Pro Gly Pro Gln Arg Pro

1879 1 5 10 15

1880 Ala Trp Arg Ala Val Ala Phe Pro Arg Gly Trp Leu Thr Pro Gly

1881 20 25 30

*Name*

Jane

Input Set: I646569.RAW

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1885			50					55					60			
1886	Val	His	Asp	His	Ala	Val	Pro	Val	Glu	Val	Val	Leu	Pro	Leu	His	Ar
1887						70					75					8
1888	Gly	Leu	Leu	His	Ser	Leu	Gln	Asp	Val	Leu	His	Asp	Gly	Leu	Gln	Hi
E-->	<b>1889</b>				85					90						95
1890	His	Leu	Leu	Val	Arg	Val	Phe	His	Gln	Asp	Glu	Pro	Gly	Lys	Val	Le
1891				100					105					110		
1892	Glu	Asp	Gln	Leu	Leu	Glu	Pro	Gly	Gln	Leu	Arg	Leu	Ala	Gly	Arg	Gly
1893			115					120					125			
1894	Gln	Leu	Leu	Glu	Gln	Glu	Arg	Asp	Ala	Asp	Leu	Gln	Gln	Arg	Leu	Pr
1895			130				135					140				
1896	Glu	Glu	Pro	Leu	Pro	His	Arg	Ala	Ala	Val	Val	Val	Val	Phe	Leu	Gly
1897				145		150				155						16
1898	His	Pro	Leu	Gln	Asp	Pro	Leu	Asp	Gly	Leu	Ala	Gln	Leu	Leu	Gly	
E-->	<b>1899</b>				165					170						175
1900	Gly	Pro	Leu	Pro	Gln	Leu	Leu	Val	Gln	Glu	Gly	Leu	Glu	Arg	Ile	Hi
1901				180					185					190		
1902	Gly	Ile	Val	His	Leu	Leu	Pro	His	Val	Asp	Leu	Gly	Ser	Leu	Leu	Gly
1903				195				200					205			
1904	His	Gly	Arg	Ala	Gly	His	Ile	Lys	Ser	Leu	Leu	Gln	Pro	Val	Gln	Se
1905			210				215					220				
1906	Gln	Arg	Leu	His	Leu	Leu	Ile	Ala	Ala	Leu	His	Leu	Gln	Gly	Val	Va
1907			225			230				235						24
1908	Arg	Gln	Pro	Gly	Gln	Leu	Leu	His	Val	Leu	Ala	Gln	Leu	Val	Asn	Al
E-->	<b>1909</b>				245					250						255
1910	Ala	Leu	Val	Asp	Asp	Val	Gln	Val	His	Val	Arg	Asp	Leu	Leu	Glu	Gly
1911				260					265					270		
1912	Asp	Ile	Ser	His	Leu	Ser	Glu	Ala	Leu	Ala	Gly	Gly	Asp	His	Gln	Gly
1913			275					280					285			
1914	Leu	Gln	Asp	Gly	Trp	Asp	Val	Gly	Leu	Asp	Met	Val	Pro	His	Ala	Hi
1915			290				295				300					
1916	Leu	Cys	Leu	Gly	Glu	Asp	Glu	Gly	Ser	Asp	Leu	Ala	Gly	Lys	Val	Le
1917			305			310				315						32
1918	Leu	Gly	Gly	Asp	Asn	Leu	Val	His	Val	Ser	Ser	Asp	Asp	Gly	Leu	Hi
E-->	<b>1919</b>				325					330						335
1920	Gly	Arg	Leu	His	Leu	Leu	His	Leu	Gly	Gln	His	Leu	Glu	Ala	Ar	
1921				340					345					350		
1922	Leu	Gly	Leu	Leu	Val	His	His	Val	Val	His	Gly	Val	Arg	Asp	Leu	As
1923			355					360					365			
1924	Pro	Leu	Pro	Leu	Pro	Leu	Leu	Arg	Phe	Pro	Leu	Gln	Pro	Arg	Ala	Gly
1925			370				375				380					
1926	Leu	Cys	Leu	Gln	Leu	Arg	Ala	Gln	Leu	Leu	His	His	Gln	Val	Ala	Gly
1927			385			390				395						40
1928	Asp	Leu	His	Leu	Val	Pro	Thr	Gln	His	Leu	Pro	Gly	Ala	Val	Gln	Le
E-->	<b>1929</b>				405					410						415
1930	Leu	Gly	Leu	Ser	Val	His	Ala	Asp	Gly	Ile	Cys	Glu	Arg	Ala	Le	
1931				420					425					430		

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Input Set: I646569.RAW

Input Set: I646569.RAW

Line	? Error/Warning	Original Text
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33	E Invalid/Missing Amino Acid Numbering	165
43	E Invalid/Missing Amino Acid Numbering	245
53	E Invalid/Missing Amino Acid Numbering	325
74	E Invalid/Missing Amino Acid Numbering	85
95	E Invalid/Missing Amino Acid Numbering	85
105	E Invalid/Missing Amino Acid Numbering	165
115	E Invalid/Missing Amino Acid Numbering	245
125	E Invalid/Missing Amino Acid Numbering	325
135	E Invalid/Missing Amino Acid Numbering	405
152	E Invalid/Missing Amino Acid Numbering	85
162	E Invalid/Missing Amino Acid Numbering	165
172	E Invalid/Missing Amino Acid Numbering	245
197	E Invalid/Missing Amino Acid Numbering	85
207	E Invalid/Missing Amino Acid Numbering	165
228	E Invalid/Missing Amino Acid Numbering	85
238	E Invalid/Missing Amino Acid Numbering	165
248	E Invalid/Missing Amino Acid Numbering	245
265	E Invalid/Missing Amino Acid Numbering	85
275	E Invalid/Missing Amino Acid Numbering	165
294	E Invalid/Missing Amino Acid Numbering	85
304	E Invalid/Missing Amino Acid Numbering	165
314	E Invalid/Missing Amino Acid Numbering	245
337	E Invalid/Missing Amino Acid Numbering	85
355	E Invalid/Missing Amino Acid Numbering	85
376	E Invalid/Missing Amino Acid Numbering	85
401	E Invalid/Missing Amino Acid Numbering	85
411	E Invalid/Missing Amino Acid Numbering	165
432	E Invalid/Missing Amino Acid Numbering	85
457	E Invalid/Missing Amino Acid Numbering	85
474	E Invalid/Missing Amino Acid Numbering	85
484	E Invalid/Missing Amino Acid Numbering	165
494	E Invalid/Missing Amino Acid Numbering	245
504	E Invalid/Missing Amino Acid Numbering	325
514	E Invalid/Missing Amino Acid Numbering	405
539	E Invalid/Missing Amino Acid Numbering	85
556	E Invalid/Missing Amino Acid Numbering	85
566	E Invalid/Missing Amino Acid Numbering	165
576	E Invalid/Missing Amino Acid Numbering	245
602	E Invalid/Missing Amino Acid Numbering	85
627	E Invalid/Missing Amino Acid Numbering	85
650	E Invalid/Missing Amino Acid Numbering	85
660	E Invalid/Missing Amino Acid Numbering	165
680	E Invalid/Missing Amino Acid Numbering	85
690	E Invalid/Missing Amino Acid Numbering	165
700	E Invalid/Missing Amino Acid Numbering	245
717	E Invalid/Missing Amino Acid Numbering	85
727	E Invalid/Missing Amino Acid Numbering	165
750	E Invalid/Missing Amino Acid Numbering	85
767	E Invalid/Missing Amino Acid Numbering	85

Input Set: I646569.RAW

Line	? Error/Warning	Original Text
777	E Invalid/Missing Amino Acid Numbering	165
787	E Invalid/Missing Amino Acid Numbering	245
797	E Invalid/Missing Amino Acid Numbering	325
818	E Invalid/Missing Amino Acid Numbering	85
837	E Invalid/Missing Amino Acid Numbering	85
847	E Invalid/Missing Amino Acid Numbering	165
857	E Invalid/Missing Amino Acid Numbering	245
874	E Invalid/Missing Amino Acid Numbering	85
884	E Invalid/Missing Amino Acid Numbering	165
903	E Invalid/Missing Amino Acid Numbering	85
913	E Invalid/Missing Amino Acid Numbering	165
938	E Invalid/Missing Amino Acid Numbering	85
948	E Invalid/Missing Amino Acid Numbering	165
958	E Invalid/Missing Amino Acid Numbering	245
968	E Invalid/Missing Amino Acid Numbering	325
991	E Invalid/Missing Amino Acid Numbering	85
1009	E Invalid/Missing Amino Acid Numbering	85
1019	E Invalid/Missing Amino Acid Numbering	165
1036	E Invalid/Missing Amino Acid Numbering	85
1055	E Invalid/Missing Amino Acid Numbering	85
1080	E Invalid/Missing Amino Acid Numbering	85
1090	E Invalid/Missing Amino Acid Numbering	165
1100	E Invalid/Missing Amino Acid Numbering	245
1119	E Invalid/Missing Amino Acid Numbering	85
1129	E Invalid/Missing Amino Acid Numbering	165
1139	E Invalid/Missing Amino Acid Numbering	245
1149	E Invalid/Missing Amino Acid Numbering	325
1159	E Invalid/Missing Amino Acid Numbering	405
1184	E Invalid/Missing Amino Acid Numbering	85
1194	E Invalid/Missing Amino Acid Numbering	165
1204	E Invalid/Missing Amino Acid Numbering	245
1225	E Invalid/Missing Amino Acid Numbering	85
1246	E Invalid/Missing Amino Acid Numbering	85
1269	E Invalid/Missing Amino Acid Numbering	85
1289	E Invalid/Missing Amino Acid Numbering	85
1307	E Invalid/Missing Amino Acid Numbering	85
1317	E Invalid/Missing Amino Acid Numbering	165
1327	E Invalid/Missing Amino Acid Numbering	245
1337	E Invalid/Missing Amino Acid Numbering	325
1347	E Invalid/Missing Amino Acid Numbering	405
1368	E Invalid/Missing Amino Acid Numbering	85
1378	E Invalid/Missing Amino Acid Numbering	165
1388	E Invalid/Missing Amino Acid Numbering	245
1398	E Invalid/Missing Amino Acid Numbering	325
1415	E Invalid/Missing Amino Acid Numbering	85
1425	E Invalid/Missing Amino Acid Numbering	165
1448	E Invalid/Missing Amino Acid Numbering	85
1458	E Invalid/Missing Amino Acid Numbering	165
1468	E Invalid/Missing Amino Acid Numbering	245
1491	E Invalid/Missing Amino Acid Numbering	85

Input Set: I646569.RAW

Line	? Error/Warning	Original Text
1508	E Invalid/Missing Amino Acid Numbering	85
1518	E Invalid/Missing Amino Acid Numbering	165
1528	E Invalid/Missing Amino Acid Numbering	245
1545	E Invalid/Missing Amino Acid Numbering	85
1570	E Invalid/Missing Amino Acid Numbering	85
1593	E Invalid/Missing Amino Acid Numbering	85
1616	E Invalid/Missing Amino Acid Numbering	85
1626	E Invalid/Missing Amino Acid Numbering	165
1645	E Invalid/Missing Amino Acid Numbering	85
1646	E Wrong Amino Acid Designator	XXX
1663	E Invalid/Missing Amino Acid Numbering	85
1673	E Invalid/Missing Amino Acid Numbering	165
1683	E Invalid/Missing Amino Acid Numbering	245
1700	E Invalid/Missing Amino Acid Numbering	85
1719	E Invalid/Missing Amino Acid Numbering	85
1736	E Invalid/Missing Amino Acid Numbering	85
1756	E Invalid/Missing Amino Acid Numbering	85
1766	E Invalid/Missing Amino Acid Numbering	165
1791	E Invalid/Missing Amino Acid Numbering	85
1810	E Invalid/Missing Amino Acid Numbering	85
1820	E Invalid/Missing Amino Acid Numbering	165
1830	E Invalid/Missing Amino Acid Numbering	245
1840	E Invalid/Missing Amino Acid Numbering	325
1850	E Invalid/Missing Amino Acid Numbering	405
1860	E Invalid/Missing Amino Acid Numbering	485
1870	E Invalid/Missing Amino Acid Numbering	565
1889	E Invalid/Missing Amino Acid Numbering	85
1899	E Invalid/Missing Amino Acid Numbering	165
1909	E Invalid/Missing Amino Acid Numbering	245
1919	E Invalid/Missing Amino Acid Numbering	325
1929	E Invalid/Missing Amino Acid Numbering	405